SURFACE WARFARE OFFICER TRAINING:

A STUDY OF UNDERGRADUATE EDUCATION AND PROFESSIONAL DEVELOPMENT

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A Report

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Dr. William Piland

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Robert D. Buxton and Dennis E. Wells

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CHAPTER 1

INTRODUCTION

Purpose of the Study

The purpose of this study is to provide a comparison of Senior and Junior Naval Officers views on Surface Warfare Officer training in the United States Navy and to what degree the pre-commissioning sources are preparing the newly commissioned officers for follow-on Surface Warfare Officer training. The cross section of views are those of senior officers and junior officers stationed throughout the United States Surface Forces. This study will provide insight on pre-training and post-training data which will serve as a collection of views on perceived value, satisfaction, and effectiveness of the Surface Warfare Officer Program.

Need for the Study

The United States Navy is comprised of over 550,000 persons attached to literally thousands of individual commands. Within this large naval population, exist the officers of the Navy's Surface Warfare Community. This separate group of specialized officers is responsible for the manning of the ships of the Navy and for ensuring that personnel and ships are operating at peak levels of readiness.

This study will focus on the views of those officers regardless of relative rank or position. While the Navy, and the Surface Warfare Officers School Command (SWOS), has done studies to obtain insight and feed-back on the effectiveness of established curriculum and individual graduates, the purpose of this study is to gain an overall insight of perceived value of training in respect to individual expectations. Records kept by the Surface Warfare Officer School, Pacific indicate that while matriculated in their respective undergraduate commissioning source, students are not learning to the same degree in their Naval Science Professional Development courses of instruction.

Background

Until 1970, newly commissioned naval surface line officers reported to their first ships without prior specialized training. In response to a Task Force Study, the Surface Warfare Officer School, Newport, Rhode Island, was then established. Primary consideration was given to students gaining self-confidence in realistic shipboard situations rather than emphasizing tests, grades, and class standing.

The favorable results of the initial SWOS program prompted the Surface Warfare Study group in Washington D.C., to recommend expansion of the program. In 1973, the Chief of Naval Operations approved expanded scope, content, and student load. Also authorized was the formation of the Surface Warfare School at the Naval Amphibious Base, Coronado, California.

In September of 1973, a Task Analysis Group was formed to study the requirements of the expanded curricalum, using Surface

Warfare Officer Personnel Qualification Standards (PQS) as course objectives. Requirements common to all junior surface line officers (regardless of assigned ship type), were drafted. Upon approval of the overall outline of the curriculum, members of the Newport and Coronado schools developed the requisite Lesson Topic Guides for all lessons to be utilized during the program of instruction.

The majority of class hours at SWOS are spent in classroom instruction in Combat Systems, Engineering, and Shipboard Management topic areas. The basic skills taught in the classroom are reinforced, however, and put to use in the SWOS ship simulators and aboard the school's Underway Training Craft. This combination provides the junior officer with both theory and practical experience. An atmosphere as close to actual shipboard conditions as possible is maintained in the simulators and aboard the Underway Training Craft.

Importance of the Study

This study will provide an independent source of data suitable for inclusion in existing Navy sponsored evaluations and studies. Additionally, this study will provide data from an independent source which is not directly affiliated with the Naval Education and Training Command (CNET).

The importance and significance of this study can potentially be far reaching. There are approximately 95 commissioning sources throughout the United States that are structured to develop young men and women morally, mentally, and physically for commissions as Ensigns in the Navy, or as 1st

Lieutenants in the Marine Corps. As such, the professional development that these individuals receive in their undergraduate curriculum is the foundation upon which their military careers will build -- regardless of their chosen career path. This study will focus on those individuals selected for Surface Warfare.

Those officers selected for surface warfare will, graduation, and commissioning, be detailed to one of the two Surface Warfare Officer School Commands, Atlantic or Pacific. It is mission of SWOS to educate and train these young officers integration into the Surface Warfare Community. The level at which SWOS commences for each individual class is essentially determined from the outcome produced by the commissioning sources. If midshipmen are not learning to the same degree, the quality of the product being pursued at SWOS is diminished. Because of the disparity in the degree of Naval Science taught among the varied commissioning sources, some officer students are caught up in the boredom of perpetual review while others are frantically treading water to keep from drowning unfamiliar information. As in any organization, the strength of the structure is determined by its weakest link.

In an "information age" with rapid technological advances, the professional development of midshipmen needs to be universal to allow for maximum growth potential. This study will compare the individual views of both senior and junior officers with regard to their own perceptions on commissioning sources, value of training, expectations of training, and finally their own assessment of Surface Warfare Officer training.

Limitations of the Study

This study does not attempt to measure effectiveness of curriculum or the quality of instruction of the Surface Warfare Officer School Command. Further limitations of this study are imposed primarily because of time and geographical constraints. Simply due to the number of commissioning sources throughout the United States, the scope of this study does not warrant, nor, does time allow for a comprehensive review of each institutions Naval Science Department.

Assumptions of the Study

For the purpose of this study, it was assumed that:

- Individuals completing the self-administered questionnaire answered the questions honestly and candidly.
- 2. Responses to questionnaires were based on personal professional experiences.
- Comments provided by respondents were candid and focused on the content and intentions of the instrument.
- 4. The sample population of the study was a representative sample of the total commissioning source population.
- 5. The information provided from independent sources was unbiased towards the subject matter.

Definition of Terms

For the purpose of this study, the following terms were defined:

Command - A naval organization with a specific function, such as a ship or shore establishment. Each command consists of officers and enlisted personnel.

Commanding Officer- The officer charged with the absolute responsibility for the safety, well-being and efficiency of his assigned command, except when relieved there from by competent authority.

Chief of Naval Education and Training (CNET) - The second echelon command in Pensacola, Florida, under whose direction naval education and training policies are formulated and instituted.

Commissioning Source - The primary avenue to a commission.

Commissioning sources include: United States Naval Academy,

Officer Candidate School, Naval Reserve Officer Training Corps

(NROTC), and other direct or indirect means of officer procurement.

Detailer - A person assigned to the Naval Military Personnel Command who determines the type and location of billets to which military personnel in the Navy are assigned. For those personnel in the Navy due to transfer to new billets, the detailer takes into consideration the needs of the Navy and the individual's desires for location, type of duty, and type of orders.

Junior Officer - An officer serving in the United States

Navy who holds the rank of Lieutenant Commander (0-4) or below.

Junior ranks include: Lieutenant Commander (0-4), Lieutenant (0-3), Lieutenant (junior grade) (0-2), and Ensign (0-1). For the purpose of this study, due to the limited accessible sample population, Junior Officers are defined as 0-1 through 0-3.

Navy or Navy Personnel - Wherever used throughout this study navy or navy personnel should be taken to include personnel within the Navy or personnel enrolled in a program leading to a commission within the Navy.

Naval Military Personnel Command (NMPC) - The second echelon command in Washington, under whose direction personnel related policies are formulated.

Naval Reserve Officer Training Corps (NROTC) - A program sponsored by the Department of the Navy in conjunction with civilian colleges and universities to provide scholarships to individuals desiring to enter the United States Navy as a commissioned officer. In return the candidate incurs an obligated service requirement.

Officer Candidate School (OCS) - U.S. Navy commissioning program designed to teach Naval Science to officer candidates prior to commissioning. Program length is 18 weeks, requirements include: baccalaureate degree, U.S. Citizenship, and a 3 to 4 year active duty obligation.

Senior Officer - An officer serving in the United States Navy who have the rank of Commander (0-5) or above. Senior ranks include: Commander (0-5), Captain (0-6), Rear Admiral (lower half) (0-7), Rear Admiral (upper half) (0-8), Vice Admiral (0-9), and Admiral (0-10). For the purpose of this study, due to the limited accessible sample population, Senior Officers are

defined as 0-4 through 0-6.

Surface Warfare Officer - A naval officer whose speciality lies in the operation and maintenance of naval surface ships.

Surface Warfare Officers School (SWOS) - Initial officer training school designed to prepare junior officers designated within the surface warfare community to assume their roles as surface warfare officers.

United States Naval Academy (USNA) - Established in 1845, the United States Naval Academy offers midshipmen academic and professional education. Upon completion, graduates receive a baccalaureate degree and a commission in the United States Navy or United States Marine Corps.

CHAPTER II

REVIEW OF THE LITERATURE

HISTORICAL INFORMATION

All Navy officer accession programs are designed to produce junior officers with a basic knowledge of the naval profession and to provide moral, mental, and physical development. The goal is to instill in each graduate the highest ideals of duty, honor, and loyalty in order to provide officers who have potential for future development of mind and character to assume the highest responsibilities of citizenship, military command and government service. (CNET NROTC, 1987).

The Chief of Naval Education and Training has produced a Minimum Professional Core Competency (MPCC) Manual which provides the professional competencies for developing course objectives for all navy officer accession programs. These competencies are in response to the policy statements of the Chief of Naval Operations which established a common category of professional and training requirements for all officer accession programs. The competencies listed in that manual are based upon fleet requirements. The competencies are the minimums which should be attained for the accession program. (CNET, 1987).

The composite of all classroom and practical instruction provides the basis for the development of a sense of dedication and commitment to the naval service and establishes personal

standards of excellence which will remain with the graduate throughout his or her naval career. Program emphasis is directed toward providing a foundation for future training, education, and professional growth. (CNET, 1987).

The organization of the Minimum Professional Core Competency (MPCC) Manual differs from previous manuals in that it is not organized to parallel the normal sequence of Naval Academy or NROTC professional Naval Science courses. The Minimum Professional Core Competency Manual is organized to expand on major domains of knowledge which a naval officer should have acquired by the time he or she is commissioned. Each section adds another item to the aspiring officer's "uniform" of competency to enter his or her chosen profession. (CNET, 1987).

On 12 December 1977 a conference was convened at CNET Headquarters to address the SWOS attrition problem and to develop a plan of action and milestones to improve the NROTC graduate performance required at SWOS. This action was in response to the attrition rate of NROTC graduates at SWOS which had reached 12.3%, this being the highest of any single first program source of commissioned officers.

In response to that conference, the plan called for the following actions:

- a. A SWOS prerequisite pretest would be administered to all first class midshipmen.
- b. The Professor of Naval Science would prepare and conduct a comprehensive review program and present this program to all first class midshipmen who by pretest results indicate a need for such review.

- c. The Professor of Naval Science could readminister the pretest or similar test prior to the first class midshipman graduating from the program.
- d. The Professor of Naval Science may advise the Bureau of Naval Personnel Accession Detailer of any specific weakness that a particular midshipman may have that should be considered in the initial assignment detailing.

The above plan was structured to put the burden of reducing the NROTC SWOS attrition rate where it belonged, at the NROTC Unit. This measure was designed to be a "stop - gap" solution. (CNET, 1978).

Now is considered an opportune time to address the views and/or concerns of the senior and junior officers regarding the SWOS program. Sufficient data exists at SWOS Command Coronado, to reveal a perspective of the overall "value" of the training provided to newly commissioned surface warfare officers. Within the scope of this study, data were collected to compare Senior and Junior Officers views on Surface Warfare Officer Training in the United States Navy and to what degree the pre-commissioning sources are preparing the newly commissioned officer for follow-on Surface Warfare Officer Training.

CHAPTER III

METHODOLOGY

Overview

The purpose of this study was to provide a comparison of views of Surface Warfare Officer Training in the United States Navy and to what degree the pre-commissioning sources were preparing the newly commissioned officers for follow-on surface warfare training. The cross section of views were those of senior officers and junior officers stationed throughout the United States Surface Navy. This study provided insight on pre-training and post-training data which serve as a collection of views on perceived value, satisfaction, and effectiveness of the Surface Warfare Officer Training.

Description of Research Methodology

The research methodology utilized in this research was a 40 question survey in Likert Scale format (Appendix C). Part 1, Background Information, consisted of 10 questions developed to collect data to describe the demographics of the sample population. Part 2, General Information, was comprised of 30 questions which were developed from the research questions to collect data on the officers' individual pre-commissioning educational experiences and Surface Warfare Officer Training experiences.

Research Design

The major research questions for this project were conceptualized from the following underlying themes: aptitude, motivation, Surface Warfare Officer (SWO) Training, Undergraduate Professional Development, and satisfaction with the Surface Warfare Community. The research questions guiding this project were:

- 1. Is there a difference in the way junior officers and senior officers perceive the initial professional abilities of the different commissioning source graduates?
- 2. Do officers have a higher level of professional motivation dependent upon their commissioning source?
- 3. Is the degree of undergraduate professional development provided by commissioning sources universal?
- 4. Is Surface Warfare Officer School (SWOS) training able to produce equal levels of professional knowledge in all officer students?
- 5. Are Surface Warfare Officers satisfied with the Surface Warfare community and its overall level of training and professional development?

The following survey questions correspond to respective research question:

- 1. Research question 1 survey questions 19, 26, 29.
- 2. Research question 2 survey questions 13, 15, 16.
- 3. Research question 3 survey questions 11, 14, 17, 20, 24, 25, 34.
- 4. Research question 4 survey questions 12, 18, 30, 31, 32, 33,

38.

5. Research question 5 - survey questions 23, 27, 28, 39, 40.

Since not all sample population subjects are familiar with all commissioning source programs nor do they share the same experiences the following questions are not valid for the identified population and will be analyzed as stand-alone questions:

- 1. Survey question 21 is not applicable to USNA nor OCS commissioned junior officers.
- 2. Survey question 22 is not applicable to USNA nor NROTC commissioned junior officers.
- 3. Survey question 35 is not applicable to USNA nor NROTC commissioned junior officers.
- 4. Survey question 36 is not applicable to OCS commissioned junior officers.
- 5. Survey question 37 is not applicable to any junior officer.

Selection of Subjects

Selection of the sample population was determined to keep data collection manageable and within the scope of this project. Surface ships were selected using the Standard Navy Distribution List (SNDL) in an attempt to select an accessible population that would be representative of the United States Navy surface forces. Purposive sampling was employed to select ships. The criteria for selection was to maintain a balance between combatants and support ships and, at the same time, attempt to achieve an equal distribution between east coast and west coast forces. A list by ship name, ship type, and homeport is found in Appendix D.

Subject selection was determined by numbers to be representative of the ship's wardroom. Specific selection procedures were identified in the Directions for Administration of the questionnaire (Appendix B). Senior Officer's commonly selected junior officers who met the prerequisites identified in the directions by drawing names out of a hat or choosing wardroom napkin rings.

For the purpose of this study senior officers were identified as those officers who had attained the rank of 0-4 or above. Junior Officers were those individuals of rank 0-3 and below.

Instrumentation

The instrument was developed to measure the respondents perceptions pertaining to the concepts and research questions identified in the Research Design. The questions were constructed from group "think tank" sessions focusing on the research These questions were then refined and presented to a questions. selected panel of experts. Dr. William E. Piland, Ed.D., Associate Professor, San Diego State University, reviewed the questionnaire in his capacity as the Education and Training Management (ETMS) program advisor and based on his expertise in the development of instruments for research conducted in the field of education. Additionally, Dr. Ron Jacobs, Ed.D., Professor, San Diego State University, reviewed the instrument and provided recommendations for analysis. The staff at Surface Warfare Officer School Command, Coronado, CA, reviewed the instrument to ensure that, as an independent research project to be conducted outside the Navy, it was constructed so as to be sensitive to the needs of

the Navy, yet, open to the public domain.

The instrument was administered to select Surface Warfare Officers in a test phase. This test was conducted in order to ensure clarity of questions, identify potentially poor questions, inappropriately worded questions, and vague questions. The officers chosen were not administered the questionnaire again, so as to avoid their being sensitized to the instrument. The data collected were employed only to make changes, as necessary, to the instrument and were not included in the data analysis. No changes were required, nor made.

Field Procedures

Questionnaire packages were assembled by the authors of this report and mailed to the selected ships (Appendix D) from the University of San Diego NROTC Unit, Alcala Park, San Diego, California. Package contents included:

- 1. A cover letter (Appendix A).
- Directions for administration of the questionnaire.
 (Appendix B).
- 3. Eight serialized questionnaires. (Appendix C).
- 4. Return envelope.

The Directions for Administration provided specific directions for the field procedures.

Data Collection and Recording

Each questionnaire package mailed out included a return envelope to facilitate timely turn-around by each respondent. Additionally, each individual questionnaire was marked with the

respective ship's name and a serial number. While this did not preclude ships from making copies of the questionnaire, it did allow for an accountability procedure to ensure that the requested number of questionnaires was completed and returned.

Returned packages were identified by ship name and the contents verified, by serial number, to contain the appropriate completed questionnaires. These were hand tallied and recorded on the ship list. Seventeen of twenty-five ship crews responded to the questionnaire within the allotted time, providing a total of 133 responses. Two ship crews responded after the fact, their data were not included in the analysis.

The questionnaires were hand scored in Likert format. Values were assigned as follows: SA=5, A=4, U=3, D=2, SD=1, and NA= Not Scored.

Data Processing and Analysis

The raw data were processed and analyzed using the "StatView 512+" Program by Brain Power, Inc. The program was booted on a MacIntosh "Mac Plus" computer using an Everex 6 hard drive. The data were analyzed using one-factor Analysis of Variance (ANOVA) with a significance level established at 0.01.

Methodological Assumptions

The methodological assumptions for this study were:

- Responses to the questionnaire were based on personal professional experiences.
- 2. Comments were candid and were focused on the content and

intentions of the instrument.

3. The sample population of the study was representative of the total commissioning population.

CHAPTER IV

ANALYSIS AND EVALUATION

Demographic Summary

The demographic summary for the sample population can be found in Table 1. By definition of this research project there were 43 senior officer respondents. Of those, Lieutenant Commanders made up the largest group of senior officers at 17.29 percent of the total sample population and Lieutenants made up the largest group of junior officers at 28.57 percent of the total sample. Forty decimal six (40.6) percent of the respondents received their commission through OCS followed by NROTC and USNA respectively. Ninety-seven decimal seven-four (97.74) percent of the sample population were male and only three respondents were female. Caucasian respondents comprised 88.72 percent of the sample. Hispanics comprised the largest minority population at 5.26 percent. The educational composition of the sample population was: 81.20 percent earned an undergraduate degree, 17.29 percent earned a graduate degree and 1.50 percent had received their doctorate.

Research Question 1

Table 2. summarizes the findings for this research question.

Survey question 19, a junior officer's aptitude for Surface

Warfare has a greater influence on success than academic

TABLE 1. QUESTIONNAIRE RESPONDENT PROFILE

GENDER	COUNT	PERCENT
Male	130.00	97.74
Female	3.00	2.26
AGE	COUNT	PERCENT
From: (>) to: (<)		
23.00 27.00	45.00	33.84
27.00 31.00 31.00 35.00	26.00 21.00	19.55 15.79
35.00 39.00	18.00	13.53
39.00 43.00	17.00	12.78
43.00 47.00 47.00 51.00	2.00 4.00	1.50 3.01
RACE	COUNT	PERCENT
Asian	1.00	. 75
Black Zaucasian	1.00	5.26
Cilipino	118.00 2.00	88.72 1.50
lispanic	5.00	2.26
ndian Sther	0.00	0.00
, Cliet	2.00	1.50
OMMISSIONING SOURCE	COUNT	PERCENT
CS	54.00	40.60
IROTC	45.00	33.84
SNA	34.00	25.56
DUCATION COMPOSITION	COUNT	PERCENT
ndergraduate	108.00	81.20
raduate octorate	23.00	17.29
OCCUPALE	2.00	1.50

TABLE 1. CONT'D

GRADE POINT	AVERAGE	COUNT	PERCENT
From: (>)	to: (<)		
2.00 2.25 2.50 2.75 3.00 3.25 3.50 3.75	2.25 2.50 2.75 3.00 3.25 3.50 3.75 4.00	6.00 7.00 36.00 27.00 34.00 9.00 9.00 5.00	4.51 5.26 27.07 20.30 25.56 6.77 6.77 3.76
PAY GRADE		COUNT	PERCENT
0-1 0-2 0-3 0-4 0-5 0-6		15.00 37.00 38.00 23.00 16.00 4.00	11.28 27.82 28.57 17.29 12.03 3.01

TABLE 2. RESEARCH QUESTION 1

IS THERE A DIFFERENCE IN THE WAY JUNIOR OFFICERS AND SENIOR OFFICERS PERCEIVE THE INITIAL PROFESSIONAL ABILITIES OF THE DIFFERENT COMMISSIONING SOURCE GRADUATES?

Significance level set at .01 -- One-factor ANOVA

Question (19): A junior officer's aptitude for the Surface Warfare discipline has a greater influence on how successful he/she will be, than the academic performance they displayed prior to their assignment aboard ship.

Group	Mean	f-test	p-value	Significant
Senior	4.16	.04	. 85	No
Junior	4.13			

Survey Response in Percentages: $\overline{X} = 4.14$

SA = 36.09% A = 49.64% U = 6.77% D = 7.52% SD = 0.0%

Question (26): Commissioning source has little to do with successful officer performance - the real training starts when they are assigned to their first ship.

Group	Mean	f-test	p-value	Significant
~				
Senior Junior	3.81 3.87	1.37	. 24	Yes
Juli Tor	3.07			

Survey Response in Percentages: $\overline{X} = 3.78$

SA = 34.59% A = 36.09% U = 4.51% D = 22.56% SD = 2.26%

Question (29): "A junior officer - is a junior officer", they are pretty much the same, regardless of commissioning source.

Mean	f-test	p-value	Significant
3.28	. 13	. 72	No
	3.28	3.28 .13	

Survey Response in Percentages: $\overline{X} = 3.23$

SA = 9.02% A = 48.87% U = 6.77% D = 26.32% SD = 9.02%

performance, was not found to be significant.

Survey question 26, commissioning source has little to do with successful performance — the real training starts onboard ship, was determined to be significant with an f-test of 1.37 and a p-value equal to 0.24. Senior officers had a mean of 3.61 indicating a tendency towards agreement with the statement while junior officer mean was 3.87. This indicates a stronger agreement with the statement.

Survey question 29, a junior officer -- is a junior officer, was not significant. The senior officer mean was 3.28 compared to 3.20 for junior officers.

Research Question 2

The findings for Research Question 2 are summarized in Table 3. All of the survey questions comprising Research Question 2 were found to be significant at the 0.01 level.

For survey question 13, Strong performance at SWOS is more likely a result of career motivation, the f-test was 1.23 and the p-value equaled 0.27. With a mean of 2.99, the junior officers were markedly undecided. The senior officers scored a mean of 3.21. While still close to the 3.0 undecided scale, their mean score was considerably higher and more towards agreement than the junior officer.

Survey question 15, was significant with an f-test of 2.71 and a p-value equal to 0.10. The junior officers recorded a mean score of 3.89 indicating agreement. The senior officers had a mean of 4.30 which showed a stronger agreement and edging towards strongly agree.

TABLE 3. RESEARCH QUESTION 2

DO JUNIOR OFFICERS HAVE A HIGHER LEVEL OF PROFESSIONAL MOTIVATION DEPENDENT UPON THEIR COMMISSIONING SOURCE?

Significance level set at .01 -- One-factor ANOVA

Question (13): Strong performance at SWOS is more likely a result of career notivation, and a desire to succeed, than the natural abilities of a student.

Group Mean f-test p-value Significant
----- Senior 3.21 1.23 .27 Yes
Junior 2.99

Survey Response in Percentages: $\overline{X} = 3.06$

SA = 4.51% A = 40.60% U = 17.29% D = 31.58% SD = 6.02%

Question (15): Motivation, to succeed as a Surface Warfare Officer, is the primary factor necessary to actually succeed as a Surface Warfare Officer.

Group	Mean	f-test	p-value	Significant
Senior Junior	4.30 3.99	2.71	. 10	Yes

Survey Response in Percentages: $\overline{X} = 4.09$

SA = 40.8% A = 42.88% U = 3.78% D = 10.53% SD = 2.26%

Question (18): In general, I have found that the motivation levels of officers are about the same, regardless of commissioning source.

(I.E. - USNA, NROTC, OCS)

Group	Mean	f-test	p-value	Significant
Senior Junior	3.67 3.47	. 96	. 33	Yes

Survey Response in Percentages: $\overline{X} = 3.53$

SA = 15.04% A = 54.89% U = 4.51% D = 19.55% SD = 6.02%

The motivation levels of officers are about the same, regardless of commissioning source, survey question 16, was significant with an f-test of 0.96 and a p-value equal to 0.33. Junior officers had a mean of 3.47, while senior officers mean score of 3.67 showed a stronger tendency towards agreement.

Research Question 3

The data for Research Question 3 are located in Table 4.

Questions 11, 14, 17, 20, and 25 were found not to be significant at the 0.01 level. Questions 33 and 34 were found to be significant.

A junior officer who maintained a strong grade point average during undergraduate education is likely to exhibit the same pattern during SWOS training, survey question 11, was not significant. Senior officers recorded a mean of 3.51 compared to a mean of 3.40 for junior officers. Both groups reported a tendency towards agreement.

On survey question 14, those SWOS students who attended the Naval Academy are better prepared for training at SWOS than those who matriculated through one of the other commissioning sources, senior officers had a mean of 2.74 and junior officers had a mean of 2.90. The means indicate a slight tendency towards disagreement among the junior officers and a stronger inclination towards disagreement among the senior officers.

Senior officers and junior officers recorded mean scores of 3.37 and 3.41, respectfully on question 17, commissioning sources should do more to motivate junior officers. The means indicate a slight tendency towards agreement in both groups.

TABLE 4. RESEARCH QUESTION 3

IS THE DEGREE OF PROFESSIONAL DEVELOPMENT PROVIDED BY COMMISSIONING SOURCES UNIVERSAL?

Significance level set at .01 -- One-factor ANOVA

Question (11): A junior officer who maintained a strong grade point average during udergraduate education is likely to exhibit the same pattern during training at SWOS.

Group	Mean	f-test	p-value	Significant
Senior	3.51	. 28	. 60	No
Junior	3.40			

Survey Response in Percentages: $\overline{X} = 3.44$

SA = 12.78% A = 50.38% U = 12.03% D = 17.29% SD = 7.52%

Question (14): Those SWOS students who have attended the Naval Academy are better prepared for training at SWOS than those who received their Naval Science training at OCS or through NROTC training.

Group	Mean	f-test	p-value	Significant
Senior	2.74	.40	. 53	No
Junior	2.90			

Survey Response in Percentages: $\overline{X} = 2.85$

SA = 11.28% A = 28.57% U = 12.03% D = 30.08% SD = 18.05%

Question (17): Our commissioning sources should do more to motivate junior officers prior to assigning them to their first shipboard tour.

Group	Mean	f-test	p-value	Significant
Senior Junior	3.37 3.41	. 05	. 82	No

Survey Response in Percentages: $\overline{X} = 3.40$

SA = 8.27% A = 43.61% U = 28.57% D = 18.80% SD = 0.75%

Question (20): I believe that our Universities are making an effort to recruit officer candidates who display an aptitude in the area of Naval Science. (This includes desire, motivation, and willingness to learn those skills)

Group	Mean	f-test	p-value	Significant
		~		
Senior	2.93	. 16	. 69	No
Junior	2.87			

Survey Response in Percentages: $\overline{X} = 2.89$

SA = 1.50% A = 21.05% U = 48.87% D = 21.81% SD = 6.77%

Question (25): Through the observation of officers and their relative performance, I have noticed a difference in the quality of training between commissioning sources.

Group	Mean	f-test	p-value	Significant
Senior	3.00	. 16	.69	No
Junior	3.09			

Survey Response in Percentages: $\overline{X} = 3.06$

SA = 9.02% A = 39.10% U = 10.53% D = 31.58% SD = 9.77%

Question (33): The Navy should take a closer look at undergraduate performance prior to commissioning. This "snapshot" of an officer's profile is an indicator of his/her ability to succeed.

Group	Mean	f-test	p-value	Significant
Senior	2.30	. 92	. 34	Yes
Junior	2.50			

Survey Response in Percentages: $\overline{X} = 2.44$

SA = 2.57% A = 21.05% U = 15.79% D = 39.85% SD = 21.05%

TABLE 4. CONT'D

Question (34): The SWOS Command should conduct a screening process of it students prior to the commencement of training. It is important

to establish criteria for acceptance.

Survey Response in Percentages: $\overline{X} = 2.74$

SA = 7.52% A = 22.56% U = 19.55% D = 36.84% SD = 13.53%

On question 20, universities are making an effort to recruit officer candidates who display an aptitude in the area of Naval Science, senior and junior officers scored means of 2.93 and 2.87, respectively. The scores indicate a slight tendency in both groups towards disagreement.

Senior officers had a mean of 3.00 and junior officers had a mean of 3.09 on question 25, by observing officer performance, I have noticed a difference in the quality of training between commissioning sources. Both groups were undecided.

Question 33, the Navy should take a closer look at undergraduate performance - a profile "snapshot," as an indicator of success, was found to be significant at the 0.01 level. The question had an f-test of 0.92 and a p-value equal to 0.34. Junior officers had a mean of 2.50 indicating a trend towards disagreement. The senior officers mean of 2.30 indicated a considerably stronger emphasis of disagreement.

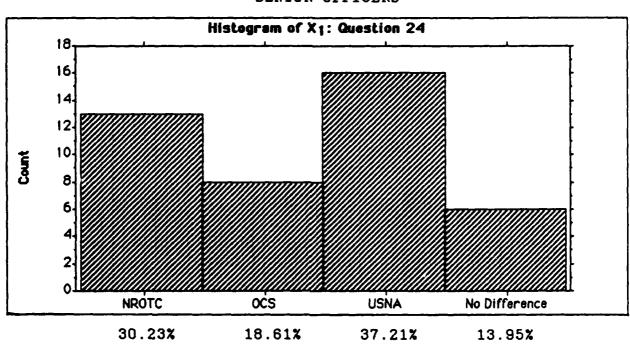
Question 34 was also significant, with an f-test of 2.89 and a p-value of 0.09. Junior officers reported a tendency towards disagreement with a mean of 2.86. Senior officers recorded an even stronger propensity for disagreement with a mean of 2.49.

Figure 1. displays histograms for question 24, I would select one commissioning program over another. Senior officers indicated that they would select USNA, 37.21 percent, as their primary commissioning program over NROTC or OCS. Junior officers chose NROTC, 44.44 percent, as their commissioning program of choice. Of the total respondents, NROTC received 39.89 percent as the commissioning program of choice versus 35.34 percent for USNA.

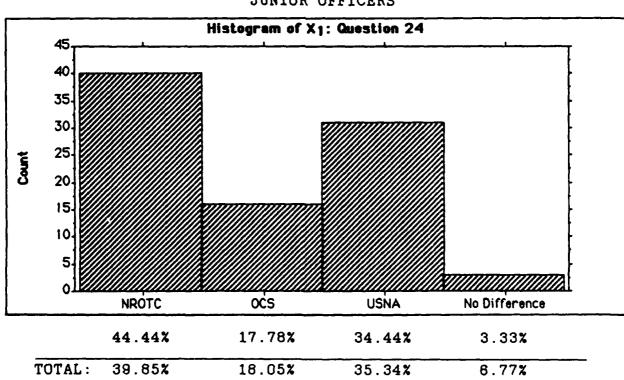
FIGURE 1. SURVEY QUESTION 24

IF I HAD MY CHOICE, I WOULD SELECT ONE COMMISSIONING PROGRAM OVER ANOTHER. CHECK MOST DESIREABLE ONE.

SENIOR OFFICERS



JUNIOR OFFICERS



Research Question 4

Table 5. summarizes the findings for the survey questions making up Research Question 4. All of the questions pertaining to this section were found to be significant at the .01 level.

Survey question 12, academic performance at SWOS is a clear indicator of professional performance, was found to be significant with an f-test of 0.65. and a p-value ecal to 0.42. Senior officers recorded disagreement with a mean of 2.77. Junior officers were more emphatic in their disagreement with a mean of 2.21.

Question 18 was found to be significant with an f-test of 1.25 and a p-value of 0.27. Senior officers showed an inclination towards agreement with a recorded mean of 3.35. Junior officers were more strongly in agreement with a mean of 3.56.

With an f-test of 1.10 and a p-value equal to 0.30 question 30, the SWOS command effectively trains junior officers considering the varied backgrounds of the students and the complexity of the shipboard assignments available after graduation, was found to be significant. Senior officers showed agreement with a mean of 3.65. Junior officers showed agreement, but to a lesser degree with a mean of 3.47.

Question 31, SWOS training is critical to the professional development of any junior officer, with an f-test of 0.53 and a p-value of 0.47, was found to be significant. Junior officers were in agreement with a mean score of 3.71. Senior officers were slightly more in agreement as a group with a mean of 3.86.

Junior officers indicated that SWOS training prepared them to

TABLE 5. RESEARCH QUESTION 4

IS SURFACE WARFARE OFFICER SCHOOL (SWOS) TRAINING ABLE TO ATTAIN EQUAL LEVELS OF PROFESSIONAL KNOWLEDGE IN ALL OFFICER STUDENTS?

Significance level set at .01 -- One-factor ANOVA

Question (12): Academic performance at SWOS is a clear indicator of how a junior officer will perform on his/her first ship. (I.E. Better academic performance - better professional performance)

Group	Mean	f-test	p-value	Significant
Senior Junior	2.77 2.21	.65	.42	Yes

Survey Response in Percentages: $\overline{X} = 2.26$

SA = .75% A = 19.55% U = 11.28% D = 42.11% SD = 26.32%

Question (18): SWOS should do more to motimate junior officers prior to assigning them to their first shipboard tour.

Group	Mean	f-test	p-value	Significant
Senior Junior	3.35 3.56	1.25	. 27	Yes
Junior	3.30			

Survey Response in Percentages: $\overline{X} = 3.49$

SA = 12.03% A = 48.12% U = 18.05% D = 20.30% SD = 1.50%

Question (30): The SWOS Command effectively trains junior officers considering the varied backgrounds of the students and the compexity of the shipboard assignments available after graduation.

Group	Mean	f-test	p-value	Significant
Senior	3.65	1.10	.30	Yes
Junior	3.47			

Survey Response in Percentages: $\overline{X} = 3.53$

SA = 3.76% A = 68.42% U = 9.77% D = 12.78% SD = 5.26%

TABLE 5. CONT'D

Question (31): I believe SWOS training is critical to the professional development of any junior Surface Warfare Officer.

Group	Mean	f-test	p-value	Significant
Senior	3.86	. 53	. 47	Yes
Junior	3.71			

Survey Response in Percentages: $\overline{X} = 3.76$

SA = 24.81% A = 47.37% U = 12.03% D = 10.53% SD = 5.26%

Question (32): Junior officers I know indicate that SWOS training prepared them to assume their roles as Division Officers.

Group	Mean	f-test	p-value	Significant
Senior Junior	3.61 3.14	5.55	.02	Yes

Survey Response in Percentages: $\overline{X} = 3.29$

SA = 5.26% A = 52.63% U = 15.79% D = 18.80% SD = 7.52%

Question (38): I believe SWOS training should be left alone.
A baseline has been established for junior officers coming out of SWOS and shipboard commands know where to "pick up" on the training.

Group	Mean	f-test	p-value	Significant
Senior	3.05	5.92	.02	Yes
Junior	2.54			

Survey Response in Percentages: $\overline{X} = 2.71$

SA = 2.26% A = 32.33% U = 13.53% D = 37.59% SD = 14.29%

assume their roles as Division Officers, question 32, was found to be significant. The f-test was 5.55. The p-value was 0.02. Senior officers agreed with a mean of 3.61. Junior officers differed in their responses with a mean of 3.14.

Senior officers were undecided with a mean of 3.05 on question 38, SWOS training should be left alone. Junior officers scored a mean of 2.54 indicating a disagreement, a significant difference from the senior officers.

Research Question 5

Table 6. summarizes the findings for this question.

Question 23, our present education and training system is doing an effective job, was not significant. Senior officers scored a mean of 3.61 while junior officers scored a mean of 3.58 indicating that both groups were in agreement. The f-test was 0.03 with a p-value equal to 0.86.

Questions 28 and 39 were found to be significant. Question 28, opportunity for promotion in the Surface Warfare Community is equal for all, regardless of commissioning source, had an f-test of 4.20 with a p-value equal to 0.04. Junior officers scored a mean of 3.63. Senior officers had a considerably stronger response with a mean of 4.05.

The SWO Community is "keeping pace" with the training demands of the future, question 39, had an f-test of 2.44 and a p-value equal to 0.12. Senior officers were undecided with a mean of 3.00. Junior officers slighted towards disagreement with a mean of 2.70.

Figure 2. illustrates question 27, there is a difference

TABLE 6. RESEARCH QUESTION 5

ARE SURFACE WARFARE OFFICERS SATISFIED WITH THE SURFACE WARFARE COMMUNITY AND ITS OVERALL LEVEL OF TRAINING AND PROFESSIONAL DEVELOPMENT?

Significance level set at .01 -- One-factor ANOVA

Question (23): Our present training and education system is doing an effective job. (NROTC, OCS, USNA)

Survey Response in Percentages: $\overline{X} = 3.58$

SA = 1.50% A = 72.18% U = 12.03% D = 12.03% SD = 2.26%

Question (28): Opportunity for promotion in the Surface Warfare Community is equal for all, regardless of commissioning source.

Group	Mean	f-test	p-value	Significant
Senior Junior	4.05 3.63	4.20	. 04	Yes

Survey Response in Percentages: $\overline{X} = 3.77$

SA = 24.06% A = 51.13% U = 6.77% D = 13.53% SD = 4.51%

Question (39): The SWO community is "keeping pace" with the training demands of the future.

Significant Group p-value Mean f-test ----____ ---------. 12 3.00 2.44 Yes Senior 2.70 Junior

Survey Response in Percentages: $\overline{X} = 2.80$

SA = 2.26% A = 28.57% U = 26.32% D = 32.33% SD = 10.53%

among USNA, NROTC, and OCS graduates when it comes to career intentions. Senior officers and junior officers both overwhelmingly selected USNA, 67.44 percent and 57.78 percent, respectively.

Figure 3. illustrates the findings of question 40, in terms of training, the SWO Community is out performing the other warfare communities. Senior and junior officers ranked submarine warfare the highest, in regards to training, 41.86 percent and 64.44 percent respectively. Senior officers ranked surface warfare training third with 11.63 percent. Junior officers ranked surface warfare training last with 2.22 percent.

Other Interesting Findings

Table 7. summarizes the findings for question 21, The NROTC program is "weeding-out" those individuals who do not belong in the Navy. This question was limited to senior officers, who have had years of experience to observe the performance of NROTC graduates, and junior officers who had gone through the NROTC program to receive their commission.

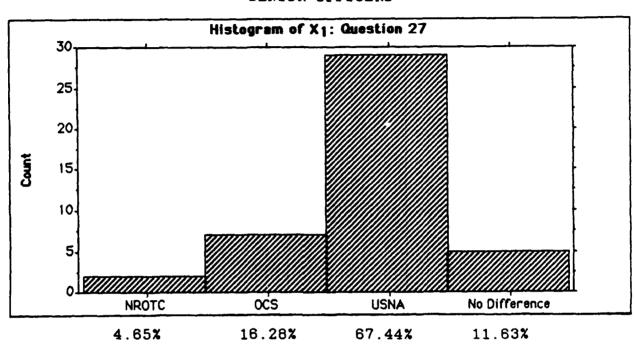
Question 21 was found to be significant at the 0.01 level with an f-test of 2.41 and a p-value equal to 0.12. Junior officers who had completed an NROTC program were undecided with a mean of 3.03. Senior officers were more inclined to disagree, scoring a mean of 2.67.

The OCS program is "weeding-out" those individuals who do not belong in the Navy, question 22, is summarized in Table 8. This question was limited to senior officers and those junior officers who had completed the OCS program in route to receiving

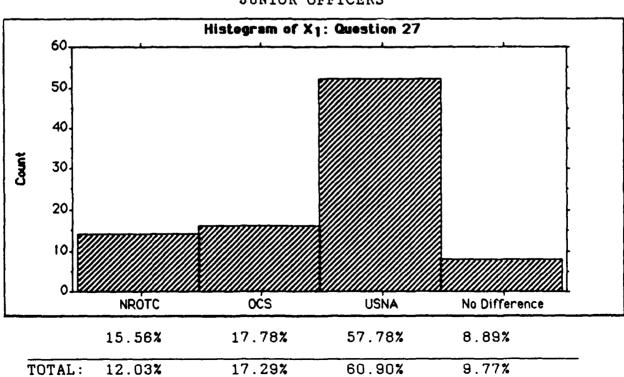
FIGURE 2. SURVEY QUESTION 27

THERE IS A DIFFERENCE AMONG NAVAL ACADEMY, NROTC, AND OCS GRADUATES WHEN IT COMES TO CAREER INTENTIONS. SELECT THE COMMISSIONING SOURCE WHOSE GRADUATES ARE MOST LIKELY TO REMAIN.

SENIOR OFFICERS

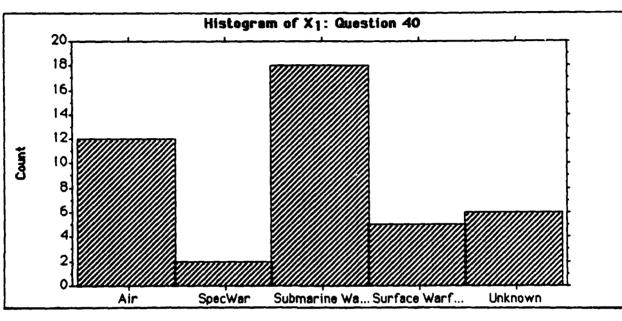


JUNIOR OFFICERS



IN TERMS OF TRAINING, THE SWO COMMUNITY IS OUT PERFORMING OTHER WARFARE COMMUNITIES. (PLEASE RANK - 1-4; 1=HIGHEST RANK, 4=LOWEST RANK)

SENIOR OFFICERS



27.91% 4.65% 41.86% 11.63% 13.95%

JUNIOR OFFICERS

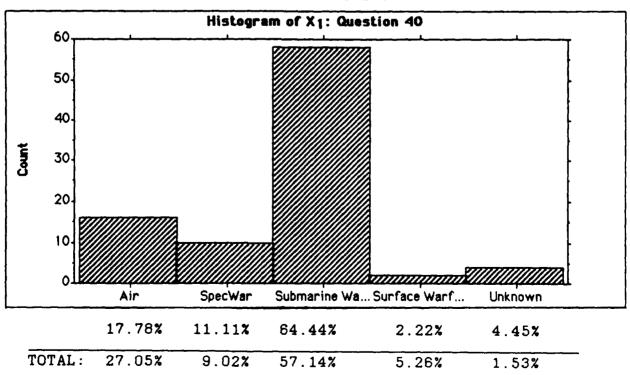


TABLE 7. SURVEY QUESTION 21

THE NROTC PROGRAMS ARE "WEEDING-OUT" THOSE INDIVIDUALS WHO DO NOT BELONG IN THE NAVY.

Significance level set at .01 -- One-factor ANOVA

Group	Mean	f-test	p-value	Significant
Senior Junior	2.67 3.03	2.41	. 12	Yes

Survey Response in Percentages: $\overline{X} = 2.83$

SA = 3.90% A = 20.78% U = 40.26% D = 24.68% SD = 10.39%

TABLE 8. SURVEY QUESTION 22

THE OCS PROGRAM IS "WEEDING-OUT" THOSE INDIVIDAULS WHO DO NOT BELONG IN THE NAVY.

Significance level set at .01 -- One-factor ANOVA

Group	Mean	f-test	p-value	Significant
Senior Junior	2.63 2.89	1.40	. 24	Yes

Survey Response in Percentages: $\overline{X} = 2.74$

SA = 1.27% A = 24.05% U = 32.91% D = 31.65% SD = 10.13%

their commission.

This question was found to be significant at the 0.01 level. The f-test was 1.40 with a p-value equal to 0.24. Junior officers tended to disagree with a mean of 2.89. Senior officers were some what more in disagreement with a mean of 2.63.

Question 35, the 16 week OCS Naval Science curriculum is beneficial to the officer as preparation for SWOS, was found to be significant at the 0.01 level. Table 9. summarizes the findings for question 35. Senior officers tended to agree with the statement with a mean score of 3.65. Junior officers did agree with the statement scoring 4.06 with their mean. This question was restricted to senior officers and those junior officers who had completed the OCS program.

Table 10. summarizes the findings for question 36, the Naval Academy and NROTC programs should institute a "refresher course" in Naval Science prior to detailing junior officers to SWOS. The responses to this question were determined not to be significant. Both the senior officer group and the junior officer group disagreed with the statement scoring means of 2.26 and 2.17, respectively. This question was limited to all senior officers and those junior officers who attended the Naval Academy or NROTC.

Figure 4. illustrates the findings of question 37, within the last 10 years, the Surface Warfare Community has made noticeable advances in terms of Surface Warfare Officer training. This question was restricted to only senior officers. Of the senior officers responding, 60.47 percent agreed with the statement and 32.56 percent strongly agreed.

TABLE 9. SURVEY QUESTION 35

THE 16 WEEK OCS NAVAL SCIENCE CURRICULUM IS BENEFICIAL TO THE OFFICER AS PREPARATION FOR SWOS.

Significance level set at .01 -- One-factor ANOVA

Group	Mean	f-test	p-value	Significant
Senior	3.65	5.40	.02	Yes
Junior	4 NB			

Survey Response in Percentages: $\overline{X} = 3.84$

SA = 17.72% A = 53.17% U = 25.32% D = 2.53% SD = 1.27%

TABLE 10. SURVEY QUESTION 36

THE NAVAL ACADEMY AND NROTC PROGRAMS SHOULD INSTITUTE A "REFRESHER COURSE" IN NAVAL SCIENCE PRIOR TO DETAILING JUNIOR OFFICERS TO SWOS.

Significance level set at .01 -- One-factor ANOVA

Group	Mean	f-test	p-value	Significant
Senior Junior	2.28 2.17	. 19	.68	No

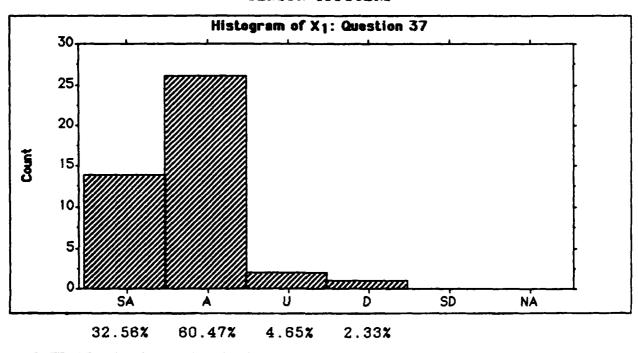
Survey Response in Percentages: $\overline{X} = 2.21$

SA = 3.09% A = 9.28% U = 14.43% D = 51.55% SD = 21.65%

FIGURE 4. SURVEY QUESTION 37

WITHIN THE LAST 10 YEARS, THE SURFACE WARFARE COMMUNITY HAS MADE NOTICEABLE ADVANCES IN TERMS OF SURFACE WARFARE OFFICER TRAINING.

SENIOR OFFICERS



CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

SUMMARY

Research Question 1

Based on the statistical findings of the three survey questions that comprised research question 1, "Is there a difference in the way junior officers and senior officers perceive the initial professional abilities of the different commissioning source graduates?", research question 1 was determined to be significant. Of the three questions two (19, 20) were not statistically significant and one, question 26, was determined to be significant. The data indicates that there is no difference between different commissioning source graduates and there was no difference in the way junior and senior officers perceive the initial professional abilities of the newly commissioned officer.

Research Question 2

Research question 2, "Do junior officers have a higher level of professional motivation dependent upon their commissioning source?", was determined to be significant. All three questions (13, 15, 16) categorized under the research question were determined to be statistically significant. While the senior and junior officers agree motivation is important to succeed as a

Surface Warfare Officer, both groups also agree that the level of motivation is not dependent upon commissioning source.

Research Question 3

With two of the seven component survey questions determined to be statistically significant, research question 3, "Is the degree of professional development provided by commissioning sources universal?", was determined to be significant. Questions 33 and 34 were determined to be statistically significant. The findings for questions 11, 14, 17, 20 and 25 were not significant. Research data does indicate that there are differences among the various commissioning source programs. The research data does not, however, indicate whether or not the differences lie in the degree of professional development afforded the officer candidates.

Research Question 4

All six survey questions (12, 18, 30, 31, 32, 38) comprising research question 4 were statistically significant. Based on the statistical findings research question 4, "Is Surface Warfare Officer School (SWOS) training able to attain equal levels of professional knowledge in all officer students?", was significant. SWOS training was indicated as being critical, effective, and adequate in preparing junior officers for assuming their roles as a junior SWO, however, there is no indication that the training is able to attain equal levels of professional knowledge in all officer students.

Research Question 5

Research question 5, "Are Surface Warfare Officers satisfied with the Surface Warfare Community and its level of training and professional development?", was determined to be significant. Of the three questions making up the research question, two (questions 28, 39) were determined to be statistically significant. Senior and junior officers both agree that as Surface Warfare Officers they are satisfied with the SWO Community and it's overall level of training and professional development.

CONCLUSIONS

While the research indicated that Surface Warfare Officers were satisfied with the overall training and professional development of junior SWO officers, there are some glaring inconsistencies. Senior officers indicated that the Surface Warfare Community has made noticeable advances in terms of SWO training (question 37), yet, all officers ranked SWO training the lowest of the warfare communities. Many officers commented that they did not know what the other communities were doing. But they knew enough to be able to 1) rank the warfare specialties, and 2) rank surface warfare low.

There was no evidence to support the notion that the degree of professional development provided by commissioning sources is not universal. Results were inconclusive to determine whether SWOS training is able to attain equal levels of professional knowledge in officer students. However, officers are in

agreement that the OCS and NROTC programs are not "weeding out" undesirable officer candidates. Additionally, senior officers selected USNA as their commissioning program of choice while junior officers selected the NROTC commissioning program (question 24).

RECOMMENDATIONS

The following recommendations are proposed based on the results of this research project:

- 1. All commissioning sources be examined in terms of how the Navy could better structure "mutual minimum competencies" in order to better align the educational levels of the source graduates.
- 2. The Surface Warfare Officer School Command continue to monitor student performance, by commissioning source, and provide feedback and recommendations to the appropriate tasking agency.
- 3. Commanding officers aboard ship be solicited, as subject matter experts, for inputs on how the Navy might better improve surface warfare training at SWOS, and other training commands.

REFERENCES

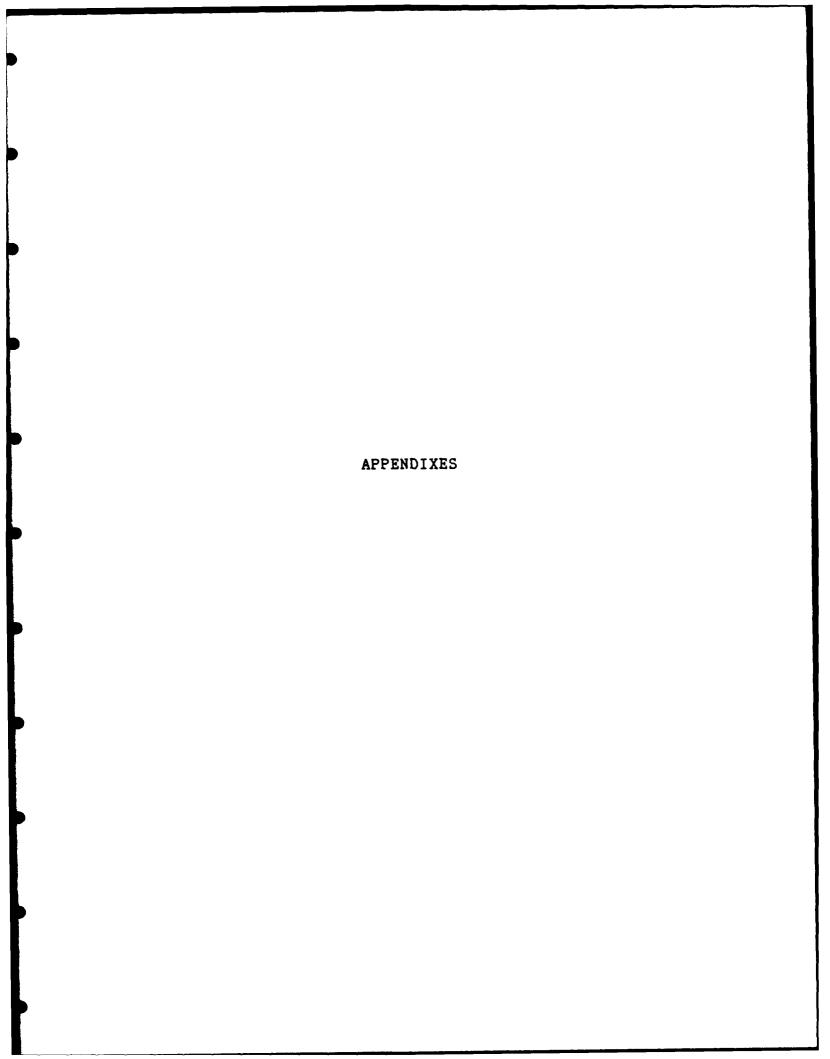
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 Professional Core Competencies (MPCC) Manual for Officer

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 NROTC SWOS Attrition. Pensacola, FL, 1978.



APPENDIX A
COVER LETTER



DEPARTMENT OF NAVAL SCIENCE
COLLEGE OF PROFESSIONAL STUDIES
AND FINE ARTS
SAN DIEGO STATE UNIVERSITY
SAN DIEGO CA 92182-0330

03 March 1989

(619) 265-3730/5645

Dear Sir,

We are Navy Lieutenants (1110's) currently assigned to San Diego State University as full-time graduate students earning our masters degree in Education and Training Management Systems (ETMS - XX37P). One requirement of the program is to produce a major research paper. To meet this milestone we have elected to conduct independent research to "Study Undergraduate Education and Professional Development." This topic has been approved by CNET (Code-641).

Enclosed are a questionnaire, administering directions and a return envelop. We request, and appreciate, your assistance in helping us gather our research data for this project by having the questionnaires completed by yourself, the Executive Officer, SWO Department Heads, and four junior officers. While selection of individual officers to respond to the questionnaire left to the discretion of the command, it would be you could provide information on appreciated if the selection that it can be documented in process 50 Additionally, it is understood if the command needs to modify the administering directions to accommodate onboard evolutions, need to know the circumstances however, we will and that they, too, can be modifications so incorporated in the report.

Again, your assistance and support are greatly appreciated.

Very Respectfully,

APPENDIX B DIRECTIONS FOR ADMINISTRATION

SURFACE WARFARE OFFICER TRAINING: A STUDY OF UNDERGRADUATE EDUCATION AND PROFESSIONAL DEVELOPMENT

Directions for Administration

These directions are provided to facilitate the administration of these questionnaires and to minimize the impact on tasks and evolutions that may be in progress and to minimize the impact on personal time.

- 1. Junior Officer respondents to be administered the questionnaire are to be those junior officers who received their commission from either USNA, OCS, or NROTC, attended SWOS Basic, and have been onboard for a minimum of one reporting period. (four officers)
- 2. The Senior Officer respondents are to include the Commanding Officer, the Executive Officer and two SWO Department Heads, designated by the CC, who are in a position to closely observe junior officer performance.
- 3. There is no time limit for answering the questionnaire, however, it is requested that the questionnaire be completed in one sitting. It is estimated that the questionnaire should take no longer than 45 minutes.
- 4. The questionnaire should be completed in as quiet an environment as possible without collaboration of others.
- 5. While the results of this questionnaire are not designed to change the course of human events, respondents are to be <u>honest and candid</u> in their responses.
- 6. If an item is not clear mark it as such and continue.
- 7. Comments and suggestions concerning the research topic and the questionnaire are welcome and can be provided at the end of the questionnaire in the space provided.
- 8. It is requested that there be a turn-around of not more than one week from date of receipt to ensure sufficient time is available to analyze the data.

APPENDIX C
RESEARCH INSTRUMENT

SURFACE WARFARE OFFICER TRAINING: A STUDY OF UNDERGRADUATE EDUCATION AND PROFESSIONAL DEVELOPMENT

QUESTIONNAIRE

<u>Background Instructions</u>: This section of the questionnaire asks for general background information so that the sample population can be accurately identified.

1.	Commissioning Source: USNA OCS NROTC
2.	Level of Education Completed: Undergraduate Graduate Doctorate
3.	Approx Undergraduate Grade Point Average (based on 4.0 scale)
4.	Duty Status: Active Reserve
5.	Paygrade: 0-1 0-4 Billet: 0-2 0-5 0-3 0-6
6.	Years of Commissioned Service
7.	Career Intentions: Yes Undecided
8.	Gender: Female Male
9.	Age
10	D. Race: Asian Caucasian Hispanic Black Filipino Indian

<u>General Instructions</u>: This section of the questionnaire asks for your reactions to questions regarding your experiences. Please answer each question as accurately as possible by circling the answer choice which reflects most closely your experiences.

Key: SA - Strongly Agree A - Agree U - Uncertain D - Disagree SD - Strongly Disagree NA - Not Applicable						
11. A junior officer who maintained a strong grade point average during undergraduate education is likely to exhibit the same pattern during training at SWOS.	SA	A	U	D	SD	NA
12. Academic performance at SWOS is a clear indicator of how a junior officer will perform on his/her first ship. (i.E. – better academic performance – better professional performance)	SA	A	U	D	SD	NA
13. Strong performance at SWOS is more likely a result of career motivation, and a desire to succeed, than the natural abilities of a student.	SA	A	U	D	SD	NA
14. Those SWOS students who have attended the Naval Academy are better prepared for training at SWOS than those who received their Naval Science training at OCS or through NROTC training.	SA	A	U	D	SD	NA
15. Motivation, to succeed as a Surface Warfare Officer, is the primary factor necessary to actually succeed as a Surface Warfare Officer.	SA	A	U	D	SD	NA
16. In general, I have found that the motivation levels of officers are about the same, regardless of commissioning source. (I.E Naval Academy, NROTC, OCS)	SA	A	U	D	SD	NA

17. Our commissioning sources should do more to motivate junior officers prior to assigning them to their first shipboard tour.	SA	A	U	D	SD	NA
18. SWOS should do more to motivate junior officers prior to assigning them to their first shipboard tour.	SA	Α	U	D	SD	NA
19. A junior officer's aptitude for the Surface Warfare discipline has a greater influence on how successful he/she will be, than the academic performance they displayed prior to their assignment aboard ship.	SA	A	U	D	SD	NA
20. I believe that our Universities are making an effort to recruit officer candidates who display an aptitude in the area of Naval Science. (This includes desire, motivation, and willingness to learn those skills)	SA	A	U	D	SD	NA
real if chose skills)						
21. The NROTC programs are "weeding - out" those individuals who do not belong in the Navy.	SA	A	U	D	SD	NA
21. The NROTC programs are "weeding - out" those	-				SD SD	
21. The NROTC programs are "weeding - out" those individuals who do not belong in the Navy.22. The OCS program is "weeding - out" those	-	A	U	D		
 21. The NROTC programs are "weeding - out" those individuals who do not belong in the Navy. 22. The OCS program is "weeding - out" those individuals who do not belong in the Navy. 23. Our present training and education system is 	SA	A	U	D	SD	NA

26. Commissioning source has little to do with successful officer performance – the real training starts when they are assigned to their first ship.	SA	A	U	D	SD	NA
27. There is a difference among Naval Academy, NROTC, and OCS graduates when it comes to career intentions. (Rank the commissioning source whose graduates are most likely to remain. i.e., 1= most likely, 2= next likely, 3= least likely) NROTC OCS USNA						
28. Opportunity for promotion in the Surface Warfare community is equal for all, regardless of commissioning source.	SA	A	U	D	SD	NA
29. "A junior officer - is a junior officer", they are pretty much the same, regardless of commissioning source.	SA	A	U	D	SD	NA
30. The SWOS Command effectively trains junior officers considering the varied backgrounds of the students and the complexity of the shipboard assignments available after graduation.	SA	A	U	D	SD	NA
31. I believe SWOS training is critical to the professional development of any junior Surface Warfare Officer.	SA	A	U	D	SD	NA
32. Junior officers I know indicate that SWOS training prepared them to assume their roles as Division Officers.	SA	A	U	D	SD	NA
33. The Navy should take a closer look at undergraduate performance prior to commissioning. This "snapshot" of an officer's profile is an indicator of his/her ability to succeed.	SA	A	U	D	SD	NA

34. The SWOS Command should conduct a screening process of its students prior to the commencement of training. It is important to establish criteria for acceptance.	SA	A	U	D	SD	NA
35. The 16 week OCS Naval Science curriculum is beneficial to the officer as preparation for SWOS.	SA	A	U	D	SD	NA
36. The Naval Academy and NROTC programs should institute a "refresher course" in Naval Science prior to detailing junior officers to SWOS.	SA	A	U	D	SD	NA
37. Within the last 10 years, the Surface Warfare Community has made noticeable advances in terms of Surface Warfare Officer training.	SA	A	U	D	SD	NA
38. I believe SWOS Training should be left alone. A baseline has been established for junior officers coming out of SWOS and shipboard commands know where to "pick up" on the training.	SA	A	U	D	SD	NA
39. The SWO community is "keeping pace" with the training demands of the future.	SA	A	U	D	SD	NA
40. In terms of training, the SWO community is out performing other warfare communities. (Please rank - 1-4; 1= highest rank, 4= lowest rank) Surface Warfare Submarine Warfare Air SpecWar						

APPENDIX D
SHIP LISTING

TABLE 11. SHIP LIST

Ship Name	Type-Hull Number	Fleet Post Office	
USS Ainsworth	FF-1090	New York 09564-1450 *	K
USS Anchorage	LSD-39	San Francisco 96660-1724 *	(
USS Bagley	FF-1069	San Francisco 96661-1429 *	K
USS Briscoe	DD-977	New York 09565-1215 *	K
USS Cape Cod	AD-43	San Francisco 96649-2535 *	K
USS Charleston	LKA-113	New York 09566-1700 *	K
USS Dale	CG-19	Miami 34090-1143	
USS Duluth	LPD-6	San Francisco 96663-1709 *	K
USS England	CG-22	San Francisco 96664-1146 *	K
USS Estocin	FFG-15	New York 09569-1473 *	ĸ
USS Forrestal	CV-57	Miami 34008-2730	
USS Germantown	LSD-42	San Francisco 96666-1730 *	K
USS John Hancock	DD-981	Miami 34091-1219 *	K
USS Inchon	LPH-12	New York 09529-1655	
USS Kidd	DDG-993	New York 09576-1265 *	K
USS La Salle	AGF-3	New York 09577-3320 *	K
USS Lockwood	FF-1064	San Francisco 96671-1424	
USS New Jersey	BB-62	San Francisco 96688-1110 *	K
USS Preble	DDG-46	New York 09582-1264 *	ť
USS David R. Ray	DD-971	San Francisco 96677-1209 *	ζ
USS San Diego	AFS-6	New York 09587-3035	
USS Scott	DDG-995	New York 09587-1267	
USS Semmes	DDG-18	Miami 34093-1248 *	:
USS Vincennes	CG-49	San Francisco 96682-1169	
USS White Plains	AFS-4	San Francisco 96683-3033	

 $[\]star$ Ship responded to survey and data contained within this report.

APPENDIX E
RESEARCH DATASET

	Commissioning Source	Education Completed	6РА	Paygrade	Seniority	Gender	Age
-	S20	Undergraduate	2.720	6 -4	Senior	Male	39
2	900	Undergraduate	2.600	0-4	Senior	Male	39
3	ensn	Graduate	2.220	9-0	Senior	Male	9
4	ENSD	Undergraduate	2.380	6-4	Senior	Male	38
S	S00	Graduate	3.200	0-5	Senior	Male	4
9	SOO	Undergraduate	3.200	0-5	Senior	Male	41
7	3108N	Undergraduate	3.000	0-4	Senior	Male	34
8	2108N	Undergraduate	3.200	4-0	Senior	Male	32
6	\$30	Graduate	2.800	9-0	Senior	Male	41
10	0CS	Undergraduate	3.200	0-4	Senior	Male	39
-	USNB	Undergraduate	2.530	0-2	Senior	Male	41
12	USNA	Graduate	3.200	9-0	Senior	Male	20
13	NROTC	Graduate	3.000	9-0	Senior	Male	37
14	\$30	Undergraduate	3.700	0-4	Senior	Female	30
15	500	Undergraduate	2.600	0-5	Senior	Male	42
16	900	Undergraduate	2.500	0-4	Senior	Male	40
17	900	Undergraduate	3.200	0-4	Senior	Male	35
18	0.00	Graduate	3.000	9-0	Senior	Male	49
19	00.8	Undergraduate	3.300	0-4	Senior	Male	38
20	BNSD	Graduate	3.000	0-4	Senior	Male	31
21	RNSD	Graduate	2.200	0-4	Senior	Male	32
22	NROTC	Graduate	3.700	0-4	Senior	Male	34
23	900	Undergraduate	3.200	0-2	Senior	Male	44
24	USNA	Graduate	3.600	0-5	Senior	Male	40
22	ENSD	Undergraduate	3.000	9-0	Senior	Male	39
70	ENSO	Graduate	2.500	9-2	Senior	Male	43
22	NROIC	Undergraduate	2.950	0-4	Senior	Male	33
28	NROTC	Graduate	2.800	6-4	Senior	Male	32
29	BNSO	Undergraduate	2.870	0-5	Senior	Male	39
30	NROIC	Undergraduate	2.100	6-4	Senior	Male	36
3	NROIC	Doctorate	2.300	0-5	Senior	Male	41

	Race	Question 11	Question 12	Question 13	Question 14	Question 15	Question 16
-	Cauc	0	OS	ย	OS	U	€
7	Cauc	A	O	0	0	u	•
3	Cauc	A	n	&	G	•	9
4	Cauc	0	n	n	2	SA	•
5	Cauc	US	¥	US	a	SA	BS
9	Cauc	U	O .	¥	•	SB	•
7	Black	0	OS .	U	8	Œ	3
8	Conc	Ω	0	•	0	•	0
9	Cauc	U	0	0	0	SA	SA
10	Cauc	6	3	3	G	•	6
11	Cauc	8	9	0	8	SA	8
12	Cauc	A	0		Œ	9	æ
13	Cauc	SA	æ	€	•	Œ	8
4	Cauc	n	0	¥	a	Œ	8
15	Cauc	n	3	•	0	SA	SA
16	Other	0	OS S	U	OS	SA	BS
17	Cauc	æ	0	0	OS	•	US
18	Cauc	n	0	•	•	Œ	æ
19	Cauc	n	Œ	3	8	SA	8
20	Cauc	n	9	3	B	•	3
21	Cauc	OS	OS	8	8	Œ	8
22	Cauc	SA	n	0	OS	æ	SA
23	Cauc	Œ	0	A	n	SR	OS
24	Cauc	æ	OS	6	A	0	&
25	Cauc	SA	SA	A	A	SA	æ
26	Cauc	3	A	A	A	B	æ
27	Cauc	SA	A	0	OS	SA	SA
28	Cauc	0	OS	OS	0S	æ	æ
50	Cauc	Œ	SO	0	n	SA	OS
	Cauc	0	80	A	OS	SR	SB
31	Cauc	A	SD	0	a	SA	0

	Question 17	Question 18	Question 19	Question 20	Question 21	Question 22
Ī						
-	a		SA	8		9
2	0	8	SA	n	A	QS
3	Œ	GE	A	n	đ	0
4	æ	B	SA	æ	2	OS
5	æ	0	u	n	7	3
9	æ	US	US	2	Œ	•
7	B	¥	8	3	3	3
8	B	8	8	3	2	3
6	8	B	SA	3	3	3
0	В	¥	æ	3	3	
1.1	B	U	US	3	3	3
12	0	0	0	•	0	0
13	0	n	0	OS	3	3
14	B	A	U	Œ	0	
15	3	OS	æ	•	3	3
16	SA	A	SA	7	0	0
17	SA	A	e e	3	3	3
18	3	B	0	2	3	3
19	3	3	H	7	3	a
20	3	2	G	3	3	3
21	Œ	Œ	n	0	3	9
22	0	0	A	0	0	0
23	0	3	A	0	0	9
24	æ	æ	A	n	3	3
25	æ	æ	A	2	2	3
26	a	0	SA	B	2	3
27	•	•	SA	2	0	0
28	8	E	SA	0	OS	08
29	Œ	•	SA	OS	0	OS
30	€	SA	SA	0	a	2
31	0	0	SA	В	n	0

	Question 23	Question 24	Question 25	Question 26	Question 27	Question 28
-	æ	NROTC	A	0	S 30	O
2	A	NROTC	3	Œ	No Difference	•
3		BNSA	0	y	S30	•
4	В	JIOHN	OS	S B	NROTC	SA
5	A	No Difference	O	0	BNSA	SA
9	0	S 30	¥	B	BNSD	SA
7	A	DIOUN	U	0	\$30	8
8	В	DIOUN	•	0	S00	0
6	B	BNSA	•	æ	BNSD	SB
10	8	BNSN	3	SA	BNSO	G
=	æ	No Difference	æ	RS	BNSD	8
12	u	BNSN	9	Œ	BNSO	8
13	æ	NROTC	•	æ	HNSN	•
14	0	S30	•	SA	BNSA	B
15	A	\$30	OS	SA	BNSN	SA
16	0	S00	3	Œ	S00	0
17	D	S20	0	SR	No Difference	G
18	2	S30	B	Œ	BNSN	6
19	en en	ENSO	æ	0	ENSO	G
20	3	ENSD	æ	3	BNSO	SA
21	G	BNSD	A	3	ENSO	•
22	Œ	No Difference	OS	SA	No Difference	Œ
23	€	USNB	OS	0	HNSN	8
24	3	USNB	æ	9	No Difference	8
25	E	USNB	В	0	BNSD	8
26	B	USNB	0	U	BNSO	E
27	Œ	S 0 0 C S	B	S B	S 30	OS
28	æ	NBOTC	0	BS	HNSO	Œ
29	Œ	USNB	SA		BNSO	SA
30	3	NROIC	æ	SA	USNA	SA
31	8	NROTC	æ	n	NROTC	B

	duestion ou	Question 31	Question 32	Question 33	Question 34
0			•	05	•
•	9	•	0	•	
8		62		OS	2
SA		æ	•	0	0
SA		SA	8	Q	0
0		SA	æ	3	8
0		3	8	3	OS
9		•		G	•
A		•	3	•	8
B		Œ		3	05
A		3	6	0	0
0		•		0	0
A		•		3	0
D		SA		æ	0
Œ		8		9	0
•		B	9	OS	
B		9	B	9	2
0	æ	A	8	Œ	O
		7	Q	3	SA
æ		n	8	3	7
0		n	0	OS	0
SA		8	æ	3	0
0	B	SA	Œ	a	OS
O		7	3	a	9
0	SA	SA	SR	æ	0
8	D	æ	Œ	8	0
0	Œ	SA	æ	•	RS
æ	0	n	0	•	3
0	OS	OS	08	0	3
B	•	SA	SR	OS	C
0	CE	Œ	Œ	9	3

	Question 35	Question 36	Question 37	Question 38	Question 39	Question 40
-	C	D	n	U	N	Submarine
2	3	D	SA	8	8	Unknown
3	3	SD	æ	A	Q	Submarine
4	E	2	U		•	Submarine
5	8	n	BS	0	0	Unknown
9	SA	A	U	0	0	Air
7	n	0	8	8	æ	Submarine
8	n	8	€	Œ	9	
9	n	0	•	B	3	Submarine
10	U	n	SA	3	3	
=	A	OS	•	•	3	Unknown
12	B	Q	SA	Œ	8	Air
13	ກ	0	Œ	3	3	Submarine
14	B	a	¥	•	OS	Specillar
15	n	n	US	3	2	Submarine
16	B	n	U	8	3	Submarine
17	B	8	8	Ω	•	Submarine
18	3	0	8	0	3	Rir
19	æ	0	•	8	a	Air
20	n	n	3	3	•	Rir
21	3	0	A	OS SD	3	Submarine
22	8	0	A	A	Œ	Unknown
23	a	0	SA	0	Q	Submarine
24	2	OS	8	2	3	Unknown
25	Œ	0	88	Œ	3	Submarine
26	3	0	æ	0	Œ	Surface War
27	SA	RS	SA	OS	OS	Rir
28	3	3	A	a	OS	Submarine
29	3	OS	Q	0	0	Air
30	3	0	SA	В	•	Surface War
31	0	0	SA	B		Surface War

	Commissioning Source	Education Completed	GPA	Paygrade	Seniority	Gender	Age
32	S00	Undergraduate	2.190	6-0	Senior	Male	37
33	ENSO	Undergraduate	3.100	6-0	Senior	Male	36
34	ENSN	Undergraduate	2.400	9-0	Senior	Male	4
35	00.8	Undergraduate	2.870	6-0	Senior	Male	36
36	\$30	Undergraduate	2.600	0-4	Senior	Male	37
37	000	Undergraduate	2.600	9-0	Senior	Male	47
38	NROIC	Undergraduate	2.500	90	Senior	Male	35
39	NROTC	Undergraduate	3.200	9-0	Senior	Male	47
40	USNB	Undergraduate	3.930	9-0	Senior	Male	38
4	\$00	Graduate	2.000	6 -4	Senior	Male	38
42	NROTC	Graduate	2.550	0-4	Senior	Male	38
43	BNSD	Undergraduate	2.090	0-5	Senior	Male	40
44	NBOTC	Undergraduate	2.900	0-3	Junior	Male	28
45	NROIC	Undergraduate	3.000	0-1	Junior	Male	23
46	NROTC	Undergraduate	2.900	0-2	Junior	Male	26
47	NROTC	Undergraduate	2.980	1-0	Junior	Male	24
48	NROTC	Undergraduate	2.700	1-0	Junior	Male	23
49	NROTC	Undergraduate	3.140	0-2	Junior	Male	26
20	NROTC	Undergraduate	2.970	1-0	Junior	Male	23
21	NROTC	Undergraduate	2.700	0-5	Junior	Male	25
52	NBOTC	Undergraduate	3.420	1-0	Junior	Male	27
53	NBOTC	Undergraduate	2.300	0-3	Junior	Male	26
54	NROIC	Undergraduate	3.090	0-2	Junior	Male	25
52	NROTC	Undergraduate	2.900	0-2	Junior	Male	25
56	NROIC	Undergraduate	2.430	0-3	Junior	Male	31
25	NROIC	Graduate	2.700	0-3	Junior	Male	30
28	NROIC	Undergraduate	3.200	0-3	Junior	Male	28
59	NROIC	Undergraduate	3.000	0-1	Junior	Male	23
09	NROIC	Undergraduate	2.900	0-2	Junior	Male	26
19	NROIC	Undergraduate	2.750	0-2	Junior	Male	26
62	NBOIC	Undergraduate	2.800	0-5	Junior	Male	24

32							
3							
7.2	2 Cauc	0	OS	ď	æ	æ	2
CC	S Cauc	n	0	Œ	3	SA	5
34	4 Cauc	n	0	a	SA	SA	5
35	5 Cauc	æ	8	3	3	SA	•
36	S Cauc	B	O	0	•	SA	
37	_	В	A	¥	a	SA	OS
38	3 Cauc	æ	O	08	0	Q	5
39	Cauc	æ	B.	æ	€	8	•
4	Cauc	æ	2	2	a	8	•
4		E	OS	В	OS	0	SA
45	\rightarrow	Œ	n	0	2	SA	•
43	-	SA	0	SA	RS	SA	9
44	Couc	SA	A	a	Œ	SA	0
45	Cauc	SB	A	Œ	OS	SA	G
46	-+	SA	OS	OS	3	0	•
42	-	0	A	B	0	OS	•
8	-	Œ	OS	0	Q	•	B
6	-	OS	OS	0	SA	æ	æ
25		æ	OS	3	В	O	SR
2	9	3	OS	9	0	0	SA
52	+	€	Œ	3	OS	Q	
53	١	0	0	Œ	O	8	SA
24	-	B	0	•	B	Œ	E
25	_	SA	0	ď	O	SA	SB
26	9	2	OS	B	0	SA	SB
27	-	SA	3	8	OS	€	G
28		OS	OS	OS	OS	SA	a
29	-	•	a	2	OS	7	g
9	-	8	0	0	OS	В	8
19	_	9	Q	a	SA	B	8
62	Cauc	0	O	0	A	В	0

	Question 23	Question 24	Question 25	Question 26	Question 27	Question 28
32	B	NROTC	n	US	BNSU	æ
33	8	NROTC	0	88	BNSD	SB
34	Œ	BNSN	Œ	æ	BNSD	RS
35	æ	BNSD	H	n	BNSD	Œ
36	B	S 30	•	8	S20	SA
37	0	No Olfference	9	O	BNSO	S.B.
38	B	No Difference		0	No Difference	8
39	A	COUNTY	0	€	BNSD	8
40		BNSD	9	•	HNSN	SS
41	Ð	JIOHN		0	BNSD	OS
42	A	No Difference	OS	Q	BNSD	SA
43	3	BNSA	•	SA	BNSD	8
44	OS	JIOHN	OS	Œ	USNB	0
45	A	JIOHN	Œ	SA	BNSD	8
46	3	3108N	0	3	SOO	0
47	0	NROTC	OS S		BNSO	G
48	8	NROTC	0	9.7 9.7 9.7	SOO	SB
49	Œ	BNSD	3	•	No Difference	3
20	A	NROTC	08	SA	ENSO	8
21	OS	NROTC	9	SA	ENSU	0
52	Œ	NROTC	A	B	ENSO	
53	æ	NROIC	0	A	No Difference	•
54	æ	NROTC	B	Я	BNSO	æ
52	æ	NROIC	OS	SA	HNSN	SR
26	æ	NROTC	æ	SA	NROTC	Œ
25	Œ	NBOIC	2	SA	NROTC	3
58	æ	NROIC	B	SA	NROTC	0
59	Œ	NROTC	0	A	USNA	•
09	€	NROIC	•	RS	USNA	8
19	Œ	ENSO	æ	0	USNA	SA
62	B	NROTC	0	•	USNA	æ

	Question 29	Question 30	Question 31	Question 32	Question 33	Question 34
32	A	A	SA	¥	O	Q
33		•	SA	B	0	•
34	.	8		¥	OS	
35	0	æ	SA	U	U	SA
36	B	æ	8	ก	OS	OS
37	SA	SA	SB	u	as	OS
38		8	0	Œ	OS	OS
39	B	8	0	Œ	•	8
40		8	æ	Œ	3	3
41		G	SA	SA	OS	•
42		U	4	G	0	OS
43		€	0	•	OS	O
44	0	0	€		0	0
45	0	.	•	y	æ	8
46	n	8	0	7	OS	a
47	æ	0	n	A	æ	2
48	OS	SD	OS	OS	0	OS
49	æ	U	SA	BS	0	
50	SA	B	SA	¥	OS	a
51	0	OS	SA	A	0	SA
52	Q	B	A	H	æ	•
53	Œ	C	n	A	0	3
54	æ	A	B	B.	0	OS
55	3	8	B.	A	0	0
56	SA	æ	A	0	OS	OS
57	3	Œ	A	n	Œ	æ
28	æ	Œ	SA	SA	•	0
29	0	æ	8	OS	0	æ
09	Œ	Œ	8	3	0	2
19	0	•	SA	A	•	OS
62	OS	R	B	n	a	O

			duestion 38	question 39	question 40
Œ	9	BS		3	Surface War
•	05	S B	4	SA	Bir
8	0	U	0	B	Surface War
SA	0	US	a	æ	Submarine
B	OS	¥	Œ	8	Submarine
æ	7	•	OS	8	Submarine
2	0	Œ	0	0	Unknown
Œ	0	•	•	Œ	Submarine
æ	2	•	•	æ	Air
SA	0	SA	SA	B	Air
•	OS	•	3	2	Air
Œ	OS	•	SA	O	Submarine
EZ.	OS	Ę	OS	SD	Submarine
æX	SA	EZ.	g	0	Submarine
EX	0	E Z	3	2	Submarine
Œ	0	EZ	0	OS	Submarine
BN	0	E	a	8	Air
BN	U	en en	OS	SD	Air
SX.	2	ŒZ		0	Submarine
BN.	0	ÆZ	6	OS	SpecWar
EX.	8	EZ.	2	0	SpecWar
EZ.	9	EZ.	0	8	Air
EX	0	EN.	8	æ	Submarine
æ	0	E Z	•	Œ	Submarine
ŒZ	OS	EZ.	OS	3	Submarine
æX	BS	EZ.	8	n	Submarine
EN	0	EN	0	0	Submarine
ŒZ	0	æz	CS	0	Submarine
EN.	OS	EX	€	B	i
Ę	0	en.	8	n	Submarine
EN	0	and a	8	æ	Submarine

	Commissioning Source	Education Completed	GPA	Paygrade	Seniority	Gender	Age
63	NROTC	Undergraduate	3.000	0-5	Junior	elaM	24
64	NROIC	Undergraduate	3.850	1-0	Junior	Male	23
65	NROIC	Undergraduate	2.800	0-2	Junior	Male	24
99	0108N	Undergraduate	3.000	0-2	Junior	Male	29
67	NROIC	Undergraduate	2.700	0-2	Junior	Male	24
68	NROIC	Undergraduate	2.700	1-0	Junior	Male	24
69	2108N	Undergraduate	2.270	£-0	Junior	Male	28
70	DION	Undergraduate	2.800	0-1	Junior	Mate	23
11	0108N	Undergraduate	3.500	0-2	Junior	Male	26
72	J108N	Undergraduate	3.400	0-3	Junior	Male	27
73	NROTC	Undergraduate	2.500	0-2	Junior	Male	28
74	NROTC	Undergraduate	2.500	0-2	Junior	Male	28
75	NROTC	Graduate	3.000	1-0	Junior	Male	28
92	J108N	Undergraduate	2.800	0-2	Junior	Male	24
77	NROIC	Undergraduate	2.800	0-5	Junior	Male	26
78	800	Undergraduate	2.500	0-2	Junior	Male	29
79	000	Undergraduate	2.600	0-2	Junior	Male	27
80	S20	Undergraduate	3.890	6-0	Junior	Male	39
81	00.5	Undergraduate	3.370	0-3	Junior	Male	29
82	S30	Undergraduate	3.300	0-3	Junior	Male	28
83	\$30	Undergraduate	3.000	6-0	Junior	Male	36
84	\$30	Undergraduate	3.100	1-0	Junior	Male	26
85	000	Graduate	3.870	0-3	Junior	Male	35
98	S20	Undergraduate	2.700	0-3	Junior	Male	26
87	\$30	Undergraduate	2.800	0-2	Junior	Male	28
88	\$30	Undergraduate	3.600	2-0	Junior	Male	33
89	900	Undergraduate	2.800	0-2	Junior	Male	26
06	\$30	Undergraduate	2.700	2-0	Junior	Male	37
16	\$30	Graduate	3.000	6-3	Junior	Male	37
92	90CS	Undergraduate	2.800	0-2	Junior	Male	29
93	S 30	Graduate	3.800	0-3	Junior	Male	30

	Race	Question 11	Question 12	Question 13	Question 14	Question 15	Question 16
63		e e	as	U	OS	SA	g
64	_	Œ	0	E	0	Œ	Œ
65	-	Œ	O	0	0	Œ	•
99	-	Œ	OS	0	¥	Œ	•
67	-	æ	0	7	n	G	3
89	Cauc	0	OS	n	Œ	SA	æ
69	Couc	SA	4	€	Œ	4	Q
20	Cauc	as	OS	•	3	3	SA
71	Filipino	BS	Œ	3	Œ	8	•
72	Cauc	H	0	9	æ	•	8
73	_	0	0	0	0	6	æ
74		æ	0	0	B	9	OS
75	Cauc	ח	A	¥	0	SA	0
92	-	OS	OS	Œ	SB	æ	Q
77		0	A	U	a	æ	G
78		æ	A	US	O	SA	G
29	Cauc	æ	OS	n	OS	SR	•
80	Cauc	0	O	OS	2	SA	OS
8	Hispa	0	a	SB	SA	SA	OS
82	Cauc	Œ	0	æ	OS	SA	C
83	-	Œ	Œ	2	0	æ	•
84		SA	€	0	OS	SR	•
85	Cauc	€	0	3	0	8	Œ
86	Asian	Œ	OS	SD	OS	SA	€
87	Cauc	Œ	æ	Q	O	0	Œ
88	Couc	8	Q	8	•	Œ	8
89	Cauc	æ	0	0	OS	SA	SA
90	Cauc	•	0	3	0	SA	•
16	Cauc	OS	OS	OS	OS	SD	OS
92	Cauc	4	3	G	Q	æ	2
93	Cauc	8	B	B	n	n	Œ

	Question 17	Question 18	Question 19	Question 20	Question 21	Question 22
63	0	0	¥	n	5	æZ
64	8	SA	8	U	3	EZ
65	2	3	8	H	•	EZ
99	3	ח	US	B	æ	E Z
67	3	n	2	us	0	EZ
89	a	B	U	Œ	SA	EX
69	n	2	SA	•	3	E
70	æ	BS	SA	8	•	EZ.
71	n	Œ	•	SA	A	EX
22	n	2	•	3	•	E
73	D	8	•	æ	4	EZ
74	0	0	SA	O	OS	EX
75	A	æ	C	3	Q	EZ
92	B	Œ	9	3	3	EZ
77	3	0	9	3	8	E
28	Œ	В	SA	3	EN	8
29	SB	SA	•	3	EN	€
80	æ	SR	SA	a	æ	9
8	Œ	Œ	SA	2	Ę	6
82	æ	æ	n	Œ	en N	0
83	€	æ	0	0	EX	Q
84	2	0	æ	n	EX.	3
82	2	Œ	3	3	EX	0
98	æ	SB	SA	O	EZ.	•
82	Œ	Œ	8	3	æ	05
88	Œ	3	•	n	en en	•
80	3	3	SR	2	EX.	B
90	3	0	•	2	ex.	0
5	3	a	SA	as	en.	OS
92	Œ	Œ	•	n	ex.	8
93	E	æ	SR	8	ŒZ	3

	Question 23	Question 24	Question 25	Question 26	Question 27	Question 28
63	В	NROTC	æ	a	ENSO	0
64	3	NROTC	0	0	HNSN	0
65	Œ	NROTC	0	B	HNSN	•
99	€	NROIC	H	BS	NROTC	•
67	8	NROTC	0	BS	No Difference	SA
89	SA	NROTC	OS	S B	BNSD	Q
69	B	BNSN	G	æ	NROTC	0
20	A	3106M	3	SS	BNSA	3
21	A	NROTC	•	8	BNSU	•
72	A	NROTC	~	SR	USNA	0
73	B	NROTC	0	Œ	HNSN	8
74	OS	USN	•	SA	HNSO	8
75	3	SJ0	0	SA	BNSD	3
92	R	NROTC	8	9	BNSD	4
22	æ	NROTC	0	SA	No Difference	•
28	0	SJO	O	SA	BNSN	G
29	8	SOO	O	A	HNSN	3
80	0	3 00	n	SA	ENSO	SA
8	م	NROTC	SA	RS	SOO	OS
82	Œ	No Difference	3	A	No Difference	•
83	3	NROIC	0	Я	S30	0
84	€	NROIC	•	SA	No Difference	7
82	A	500	Q	A	S30	B
86	3	NROIC	OS	SA	NBOTC	3
82	0	NROIC	9	SA	USNA	æ
88	•	USNA	G	8	\$30	OS
88	•	S 30	0	SA	HNSN	SA
06	•	NROTC	B	Œ	USNA	8
16	Œ	ENSO	OS	SA	SOO	SA
92	A	S30	0	В	NROTC	SA
इ	B	BNSD	SA	0	USNA	SA

34	7	Œ	0	0	SD	SD	0	=	Œ	7	0	0	SA	9	9	3	•	SD	0	3	0	0	0	æ	SA	0	0	3	SA	0	=
Question 34																						-									
Question 33	0	æ	Q	0	0	OS	OS	9	8	3	0	æ	8	3	3	SA	OS	OS	OS	8	•	7	3	æ	SA	0	0	3	OS	0	n
Question 32	0	2	8	æ	æ	Œ	Q	OS	•	Œ	9	05	Œ	0	•	3	3	OS	OS	•		æ	•	0	0	3	æ	Œ	OS	Œ	W
Question 31	8	D	æ	8	0	n	0	OS	•	u	A	OS	A	Q	A	2	7	SB	æ	В	A	SA	A	В	0	A	G	æ	SA	•	SA
Question 30	•	3	æ	Œ	SB	•	0	n	n	8	0	OS	B	0	8	0	A	B	SD	8	•	Œ	Œ	3	€	0	8	•	SB	•	B
Question 29	Œ	æ	Œ	8	SA	SB	OS	Œ	A	Œ	æ	OS	SA	0	Œ	Œ	æ	OS	Œ	æ	3	Œ	0	BS.	OS	OS	Œ	Œ	OS	Œ	B
	63	64	65	99	29	89	69	20	71	72	73	74	75	92	77	78	79	80	81	82	83	84	82	98	87	88	88	06	91	92	93

L	Question 35	Question 36	Question 37	Question 38	Question 39	Question 40
63		05	BN	0	0	Submarine
64		7	€Z	0	0	Submarine
65		B	87	Œ	B	1
99		0	BN	Œ	8	Air
29		0	an BN	#	3	Air
89		OS	EN	0	3	SpecWar
69		OS	Ę	9	a	Submarine
2		•	Œ	OS	3	Air
71	æ	0	Ę	O	Œ	Submarine
72		OS	ŒZ	Œ	SB	Submarine
73	. A	0	ŒZ	0	3	1
74		OS	an an	8	OS	Submarine
75	en.	n	æZ	3	3	Submarine
92	BN	0	Æ	a	Q	Submarine
77	E Z	0	BN	¥	æ	Unknown
78	Œ	AN.	AN	OS	0	Unknown
79	SB	AN	AN.	OS	2	Submarine
80	SA	BN	RN	OS .	3	
81	Œ	BN	RN	0	0	Submarine
82	Œ	æX	EN	n	æ	Submarine
83	Œ	EN	en.	0	9	Air
84	•	æZ	BN	O	æ	Submarine
85	Œ	ŒZ	RN	8	Œ	Submarine
86	SA	æX	BN	O	Q	SpecWar
87	3	æz	œN.	O	0	Specillar
88	Œ	ŒZ.	EN.	OS	€	Submarine
89	RS	ez.	EN	0	•	Submarine
90	æ	æz	æZ	0	Œ	Submarine
91	SA	ŒZ	E Z	S.B.	as	Submarine
92	RS	ŒZ	ŒZ	OS	Œ	Submarine
93	SA	BN	BN	n	₩.	Submarine

	Commissioning Source	taucation completed	6PR	Paygrade	Seniority	Gender	Age
94	\$30	Undergraduate	2.400	0-5	Junior	Male	27
95	000	Undergraduate	3.200	2-0	Junior	Male	33
96	S00	Undergraduate	3.000	0-3	Junior	Male	31
97	000	Undergraduate	2.800	0-2	Junior	Male	25
96	S30	Undergraduate	3.000	0-3	Junior	Male	34
66	000	Undergraduate	3.000	1-0	Junior	Male	24
100	000	Undergraduate	3.000	0-3	Junior	Male	33
101	000	Undergraduate	3.280	2-0	Junior	Male	32
102	\$30	Undergraduate	3.400	0-2	Junior	Male	26
103	SOO	Undergraduate	2.850	0-2	Junior	Male	26
104	\$30	Graduate	3.500	0-3	Junior	Male	31
105	SJ0	Undergraduate	3.250	0-2	Junior	Male	27
106	\$30	Undergraduate	3.600	0-2	Junior	Male	27
107	0CS	Undergraduate	2.710	0-3	Junior	Male	32
108	\$30	Undergraduate	3.600	0-2	Junior	Male	24
109	S20	Undergraduate	2.800	0-2	Junior	Male	31
110	000	Undergraduate	2.900	0-2	Junior	Male	25
Ξ	S00	Undergraduate	3.400	0-3	Junior	Male	34
112	\$30	Undergraduate	3.000	0-3	Junior	Male	35
113	\$30	Undergraduate	3.200	0-2	Junior	Male	32
114	USNA	Undergraduate	2.540	0-3	Junior	Female	30
115	BNSO	Undergraduate	2.500	0-3	Junior	Male	25
116	BNSD	Undergraduate	2.500	2-0	Junior	Male	26
112	ENSD	Undergraduate	2.500	0-3	Junior	Male	27
8=	ENSO	Undergraduate	3.220	0-3	Junior	Male	25
119	ENSO	Undergraduate	2.600	0-2	Junior	Male	25
120	HNSA	Undergraduate	2.600	0-2	Junior	Female	24
121	BNSD	Undergraduate	2.770	0-2	Junior	Male	24
122	HNSD	Undergraduate	2.500	0-2	Junior	Male	24
123	USNA	Undergraduate	2.650	1-0	Junior	Male	26
124	BNSD	Undergraduate	3.000	0-3	Junior	Male	31

	Race	Question 11	Question 12	Question 13	Question 14	Question 15	Question 16
94		OS	Q	U	U	æ	B
95	Filipino	Œ	B	y	US	SA	Œ
96	Cauc	8	n	0	8	æ	A
97		Œ	O	U	0	•	•
86	Black	0	OS	N	BS	OS	0
66	Cauc	0	0	U	OS	Œ	O
100	Cauc	3	OS S	Ω	0	Œ	B
101	Cauc	Œ	0	0	2	SA	•
102	Cauc	æ	OS	OS	3	Œ	SD
103	Hispa	OS	OS S	0	0	BS	SA
104	Cauc	€	0	0	0	3	SB
105	Cauc	SA	0	0	0	SA	€
106	Cauc	æ	0	n	SA	SA	0
107	Cauc	SR	0	H.	OS	æ	8
108	Cauc	æ	0	A	OS	SA	9
109	Cauc	n	A	2	0	SA	0
110	Cauc	Œ	0	A	0	æ	B
111	Cauc	Œ	A	B	0	Œ	•
112	Cauc	0	0	A	n	0	A
113	Cauc	Œ	A	A	0	æ	•
114	Cauc	Œ	O	A	В	SR	0
115	Cauc	Œ	OS	a	В	SA	SA
116	Cauc	0	0	B	В	æ	0
117	Cauc	Œ	OS	0	SR	Œ	8
118	Cauc	Œ	8	0	A	æ	0
119	Cauc	Œ	Œ	A	SA	SA	0
120	Cauc	0	0	n	æ	Œ	B
121	Cauc	Œ	3	RS	SA	Œ	8
122	Cauc	3	0	a	B	В	n
123	Cauc	0	0	RS	æ	SR	SA
124	Cauc	A	as	2	0	Œ	æ
					4	The state of the s	

	Question 17	Question 18	Question 19	Question 20	Question 21	Question 22
94	•	æ	A	B	BN	O
95	Œ	8	A	G	æx	•
96	€	B	SA	R	æx	0
97	æ	æ	SA	¥	æx	•
98	8	2	SA	OS	en.	QS
66	2	n	Œ	7	EN.	0
100	0	0	SA	0	an	9
101	n	B	Œ	3	RN	Q
102	8	ก	•	0	SA.	OS
103	SA	SA	0	8	æX	•
104	A	A	A	3	EX	3
105	A	•	3	3	EX	0
106	SA	S B	B	0	EX	SA
107	B	B	SA	2	EX.	•
108	ח	3	G	0	EN	•
109	R	SA	B	2	Ę	0
110	æ	A	8	3	æ	2
==	n	0	æ	æ	EX	•
112	3	n	SA	7	S.	•
113	0	0	B	a	ŒZ	0
411	Œ	•	A	2	EX.	S.
115	3	a	SA	n	æ	ez.
116	€	Œ	R	0	en.	EZ.
112	Œ	Œ	В	0	en en	EZ.
	3	9	2	0	EX	æz
119	8	Œ	SA	7	æX	EZ.
120	A	Œ	SA	n	en .	RN
121	SA	SA	SA	0	EN.	EZ.
122	3	3	E	n	EN.	EN.
123	SA	SA	BS	0	ŒZ	EZ.
124	n	æ	æ	ə	AN.	SN.

	Question 23	Question 24	Question 25	Question 26	Question 27	Question 28
24	3	NROTC	¥	BS	BNSO	9
95	€	ENSA	a	US	BNSO	•
96	0	NROIC	n	8	BNSD	•
97	8	S20	n	SA	BNSD	æ
96	3	NROTC	BS	05	HNSD	OS
99	0	90CS	0	0	S20	G
100	8	SOO	•	В	S00	9
101	æ	S20	Œ	0	No Difference	S.B.
102	0	S30	•	æ	HNSN	•
103	SR	ensa	.05	SA	S30	OS
104	E	S 20	0	€	SOO	•
105	æ	NROTC	C	Œ	NROTC	8
106	æ	BNSN	S. S	G	BNSD	0
107	æ	USNB	G	Œ	No Difference	SA
108	E	SOO	8	•	BNSO	•
109	æ	S30	B.	SA	SJO	SA
110	В	S 20	0	æ	S 00	B
=	æ	No Difference	B	SA	ENSO	3
112	€	NBOIC	0	8	HNSN	æ
113	Œ	No Difference	0	8	ENSO	#
114	3	BNSD	SA	OS	ENSU	æ
115	0	ENSA	0	A	ENSO	SB
116	0	HNSN	SA	0	ENSO	SA
1117	3	BNSD	A	B	NROTC	æ
118	8	BNSD	Œ	O	S00	Œ
119	8	ENSO	æ	0	BNSD	Œ
120	æ	ENSO	2	В	SOO	3
121	æ	SNS	SA	В	BNSN	Œ
122	€	ENSA	C	æ	USNA	Œ
123	9	ENSA	Œ	SA	USNA	SA
124	æ	ENSO	O	A	NROTC	æ

	Question 29	Question 30	Question 31	Question 32	Question 33	Question 34
76	•	æ	BS	0	OS	a
95	•	8	BS	HS	•	8
96		2	¥	0	3	8
97	8	æ	SA	8	0	æ
86	OS	OS	88	0	3	OS
66	8	0	U	ח	0	0
100	0	æ	SA	•	6	•
101	0	y	SA	H	0	ח
102	n	0	0	0	0	A
103	SA	SR	A	R	OS	A
104	8	0	OS	0	7	0
105	8	•	B	8	æ	æ
106	0	n	0	•	æ	Œ
107	0	GE	Œ	3	a	8
108	æ	B	A	æ	3	a
139	æ	A	A	2	æ	3
110	8	æ	B	Œ	Œ	•
=	3	æ	3	æ	Œ	B
112	E	A	8	Œ	0	0
113	Œ	æ	B	Œ	0	0
114	OS	•	A	n	•	3
115	Œ	0	0	0	OS	3
116	OS	8	Œ	•	•	•
117	Œ	Œ	Я	0	0	9
118	0	3	a	n	3	3
119	•	€	0	B	C	G
120	O	Œ	æ	Ø	O	C
121	Œ	Œ	SA	В	O	•
122	B.	Œ	•	3	0	2
123	SA	•	Œ	G	O	B
124	A	æ	SA	SA	OS	•

94 RB NB NB NB B Submarfue 95 B NB NB B Submarfue 96 B NB NB B Submarfue 96 B NB NB B Submarfue 97 B NB NB B NB B 99 SB NB NB B D Submarfue 100 B NB NB B B B 101 B NB NB B B B 102 SB NB NB B B B 103 B NB NB B B B 104 NB NB NB B Submarfue Submarfue 105 B NB NB NB B Submarfue 105 B NB NB NB B		Question 35	Question 36	Question 37	Question 38	Question 39	Question 40
14 NB NB NB NB Submarine or							
6 NA NA NA SA Submarine 16 10 NA NA 0	94		S.	BN	0	0	Submarine
6 U NA NA NA D Submarine 12 SA NA NA D	95		AN.	E X	E	BS	Submarine
10 NAB NAB NAB SD banarine 10 SAB NAB NAB D <th>96</th> <td></td> <td>RN</td> <td>8Z</td> <td>0</td> <td>0</td> <td>Submarine</td>	96		RN	8 Z	0	0	Submarine
6 SB NB NB </th <th>97</th> <th>8</th> <th>S.</th> <th>€N</th> <th>0</th> <th>3</th> <th>Air</th>	97	8	S.	€N	0	3	Air
1 NA NA NA A D Unknown 1 NA NA NA 0 Unknown 0 NA	98	CS .	BN	E Z	OS	OS	
1	66	SA	an BN	en.	0	9	Air
1 SR NR NR D U Surface Ua 3 NR NR NR R R R R R R R R Submarine Submarin	100	E	EN.	EZ	•	9	Unknown
2 SR NR NR NR R <th>101</th> <th>8</th> <th>EN</th> <th>€X</th> <th>0</th> <th>3</th> <th>Surface War</th>	101	8	EN	€X	0	3	Surface War
3 B NB NB B Specification 4 U NB NB B Specification 5 B NB NB B NB	102	SA	EZ	æZ	0	0	Air
4 U NA NA Special 5 B NA NA B NA 6 B NA NA NA NA NA 7 SAB NA	103	H	EX	ez.	B	8	Air
5 B NA NA AB Submarine 6 B NA NA 0 Special 7 SA NA NA <td< th=""><th>104</th><th>n</th><th>EN</th><th>E</th><th>0</th><th>OS</th><th>SpecWar</th></td<>	104	n	EN	E	0	OS	SpecWar
6 SR NA NA B U Specification of the control of	105	0	E N	Ę	B	0	Submarine
A C	106	8	EZ	en.	B	3	Speciliar
B NAB NAB NAB Submarine B NAB NAB U NAB	107	SA	SZ.	EZ	3	3	Submarine
9 AB NAB NAB SD Unface IIIA 1 AB NAB NAB U D Special Spe	108	æ	BN	en .	8	8	
0 AB NAB NAB C AB Submarine 1 AB AB <t< th=""><th>109</th><th>B</th><th>æN.</th><th>BN</th><th>05</th><th>3</th><th>Surface War</th></t<>	109	B	æN.	BN	05	3	Surface War
1 AB NAB NAB U AB Submarine 2 AB NAB NAB D Unkno 3 AB NAB D Submarine 4 NAB D Submarine 5 NAB D Submarine 6 NAB D Submarine 7 NAB D Submarine 8 NAB D Submarine 9 NAB D Submarine 1 NAB D Submarine 2 NAB D Submarine 3 NAB D Submarine 4 NAB B Submarine 5 NAB NAB Submarine 6 NAB NAB Submarine 7 NAB NAB Submarine 8 NAB NAB Submarine 9 NAB NAB Submarine 1 <th>011</th> <td>æ</td> <td>BN</td> <td>BN</td> <td>2</td> <td>0</td> <td>Specillar</td>	011	æ	BN	BN	2	0	Specillar
2 AB NAB NAB D Unkno 3 AB NAB C <	=	B	EN	EN	2	æ	Submarine
5 AB NAB Unknown 4 NAB D Submarine 5 NAB D Submarine 6 NAB D Submarine 7 NAB D Submarine 8 NAB D Submarine 9 NAB D Submarine 9 NAB D Submarine 1 NAB D Submarine 2 NAB NAB Submarine 3 NAB Submarine 4 NAB SO Submarine 5 NAB NAB SO Submarine 6 NAB NAB SO Submarine	112	8	en en	EZ.	0	0	Air
4 NAB D Submarine 5 NAB D Submarine 6 NAB D Submarine 7 NAB D Submarine 8 NAB D Submarine 9 NAB D Submarine 9 NAB D Submarine 1 NAB NAB Submarine 2 NAB NAB Submarine 3 NAB NAB Submarine 4 NAB NAB Submarine 5 NAB NAB Submarine 6 NAB NAB Submarine 7 NAB NAB Submarine 8 NAB Submarine 9 NAB NAB Submarine 1 NAB NAB Submarine	113	æ	en en	EN	7	3	Unknown
5 NAR D NAR D Submarine 7 NAR D NAR D Submarine 8 NAR D Submarine Submarine 9 NAR D NAR Submarine 1 NAR D Submarine 2 NAR NAR NAR Submarine 3 NAR NAR Submarine 4 NAR NAR Submarine 5 NAR NAR Submarine 6 NAR NAR Submarine 7 NAR NAR Submarine 8 NAR NAR Submarine	114	E X	0	EN	9	0	Submarine
6 NAB SOB Marine 7 NAB D Submarine 8 NAB Submarine 9 NAB B Submarine 9 NAB D Submarine 1 NAB D Submarine 2 NAB B Submarine 3 NAB Submarine 4 NAB NAB Submarine 4 NAB NAB Submarine 5 Submarine Submarine 6 Submarine Submarine 7 NAB NAB Submarine	115	E Z	0	AN	0	OS	Submarine
7 NAR D Submarine 8 NAR B Submarine 9 NAR B Submarine 9 NAR D B 1 NAR D D 2 NAR D C 3 NAR D C 4 NAR NAR C 4 NAR NAR Submarine 4 NAR NAR Submarine 5 Submarine Submarine 6 NAR NAR Submarine	116	Ę	OS	EN.	0	a	
B NAB D NAB A Submarine 9 NAB 0 NAB 8 NAB 1 1 NAB 0	117	Ę	0	RN	0	0	•
9 NAB D NAB Submarine 1 NAB D D D 2 NAB D NAB Submarine 3 NAB Submarine 4 NAB A Submarine 4 NAB B Submarine 4 NAB B Submarine 4 NAB B B Submarine	118	SZ.	0	RN	В	æ	l
D NAB D NAB D Submarine I NAB NAB 0 Cubmarine I NAB NAB Submarine I NAB NAB Submarine I NAB NAB Submarine I NAB NAB NAB NAB	119	Œ	0	æZ	æ	B	Submarine
I NA U NA U Submarine I NA A I Submarine I NA NA SO Submarine I NA NA SO Submarine I NA NA NA NA	120	\$	0	₽N	Q	0	Air
2 NAB D NAB AB Cubmarine 5 NAB NAB SO Submarine 4 NAB NAB AB D Submarine	121	AN.	3	EN	0	n	Submarine
S NA NA SUbmarine 4 NA A NA NA A B D	122	EX.	0	ŒZ	æ	n	
NA NA D	123	S.	B	EX	OS	05	1
	124	EN.	A	en.	В	O	Air

	Commissioning Source	Education Completed	6PA	Paygrade	Seniority	Gender	Age
125	UNSO	Graduate	2.700	0-3	Junior	Male	26
126	ENSO	Graduate	2.860	1-0	Junior	Male	24
127	ENSO	Graduate	2.700	2-0	Junior	Male	27
128	ENSO	Undergraduate	2.700	2-0	Junior	Male	28
129	BNS 11	Undergraduate	2.930	2-0	Junior	Male	31
130	ENSO	. Doctorate	3.500	2-0	Junior	Male	30
131	BNSA	Undergraduate	2.700	0-2	Junior	Male	25
132	ensn	Undergraduate	2.610	1-0	Junior	Male	23
133	ensn	Undergraduate	2.700	0-3	Junior	Male	25

	Race	Question 11	Question 12	Question 13	Question 14	Question 15	Question 16
125	125 Cauc	OS S	OS	9	¥	SR	•
126	126 Cauc	OS	0	•	SR	Œ	Œ
127	127 Cauc	0	0	H	B	0	y
128	Cauc	₩S	0	8	B	SA	Œ
129	Cauc	Œ	OS	•	n	3	7
130	Cauc	¥	A	0	US	8	0
131	Cauc	8	n	2	U	SA	В
132	Cauc	U	0	0	SA	SA	0
133	Cauc	¥	2	U	n	RS	a

Question 18 Question 19
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	Question 23	Question 24	Question 25	Question 26	Question 27	Question 28
125	n	BNSN	SA	æ	BNSD	SA
126	R	BNSA	SA	Q	BNSO	SA
127	a	BNSN	•	8	NROTC	€
128	Œ	BNSN	0	0	NROTC	8
129	8	BNSD	•	SA	S20	5
130	8	BNSA	SA	OS	NROTC	•
131	8	BNSA	2	n	NROTC	8
132	G	USNB	SA	0	HNSN	SA
133	æ	USNA	A	0	ESNA	A

	Question 29	Question 30	Question 31	Question 31 Question 32	Question 33	Question 34
125	0	Œ	BS	8	OS	SA
126	0	U	OS	OS	Œ	OS
127	0	æ	7	9	CS	SD
128	0	0	SA	8	OS	SA
129	B	SD	as	OS	3	9
130	OS	A	SA	8	SA	SA
131	2	A	•	8	•	OS
132	3	0	88	•	•	3
133	Œ	B	Ð	A	OS SD	Q

		Question 35	Question 36	Question 37	Question 37 Question 38	Question 39	Question 40
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9	125	SX.	0	SZ.	OS	Q	Submarine
1	126	ex.	05	æZ	0	B	Submarine
	127	æX	OS	EZ.	0	3	Submarine
OS O	128	EX	0	EX	as	0	Specifier
	129	SN.	0	EX	OS	OS	Submarine
O BN	130	EX	OS	AN.	•	0	Submarine
	131	æx	OS	EZ.	æ	0	Submarine
D BN D	132	SZ.	9	EX	a	3	Submarine
	133	S.	0	AN.	0	2	SpecWar